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Textile Mills in Philadelphia

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FOREWORD

THE Editorial Council departed from its usual procedure in the preparation of this volume. In lieu of a series of monographs dealing with the general subject matter of the volume the officers of the Academy decided that a thorough-going independent investigation by one individual would meet the present needs of the public better than would a series of monographs treating the same subject from different points of view.

The Directors of the Academy, therefore, named Dr. Ernest Minor Patterson, Professor of Economics at the University of Pennsylvania, as research fellow of the American Academy of Political and Social Science. Dr. Patterson had spent many years as a special investigator of international economics. Under this special research fellowship Dr. Patterson went to Europe and visited all of the countries referred to in his monograph, had access to the files of numerous official and unofficial bodies and was generally accorded every possible assistance by the officials of the countries of Western Europe. The result of his study is embodied in this special monograph. His monograph he supplements with special articles by Europeans who are outstanding experts in the fields chosen for their special discussions.

The officers of the Academy send this volume out with the hope that it may prove of service in presenting a factual background for the formation of public opinion as to the outstanding policies that should guide us and the countries of Western Europe in their relations one with the other.

CLYDE L. KING,
Editor.

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MEMORANDUM

TO : THE CHAIRMAN, DEPARTMENT OF CHEMISTRY
FROM : [Name]
SUBJECT: [Subject]
DATE: [Date]
[The following text is extremely faint and largely illegible. It appears to be a formal report or memorandum detailing a project or experiment. It contains several paragraphs of text, some of which are indented. The text is too blurry to transcribe accurately.]

Western Europe and the United States

By ERNEST MINOR PATTERSON

Professor of Economics, University of Pennsylvania, Research Fellow of the American Academy of Political and Social Science

Chapter I

OUR STAKE IN EUROPE

ON August 21, 1922, the United States Government was the creditor of twenty European Governments to the amount of \$11,524,951,869.15. This sum is a total of several items, all connected with the war and post-war period, and includes both principal and accumulated interest, allowance having been made for some interest payments and for the repayment of a small amount of the principal sums. It includes the promises of relatively strong creditors as well as weak ones. In other words, it is a grand total, but a net one for the date given. Since repayments of principal and payments of interest are not being made with sufficient rapidity, the sums due are growing constantly larger, rather than smaller, amounting to much more when

these words are being read than when they were written.

First among the items that are combined to give this total are the advances made by our government under the acts of Congress of April 24, 1917, September 24, 1917, April 4, 1918 and July 9, 1918. Under the provisions of these four laws the sums made available by Congress amounted to \$10,000,000,000, and credits were established by the Treasury Department in favor of various "foreign governments engaged in war with enemies of the United States." From these credits thus established, advances were made to eleven different countries.

Several countries, notably Great Britain and France, have repaid a part, though not a large part, of the principal

AMOUNTS DUE AS ACQUIRED UNDER LIBERTY BOND ACTS

COUNTRY	PRINCIPAL SUM	INTEREST ACCRUED AND UNPAID	TOTAL SUMS DUE
Belgium.....	\$347,251,013.40	\$51,391,987.94	\$398,643,001.34
Cuba.....	7,740,500.00	.....	7,740,500.00
Czechoslovakia.....	61,974,041.10	8,591,105.64	70,565,146.74
France.....	2,933,516,448.19	430,049,062.65	3,363,565,510.84
Great Britain.....	4,135,818,358.44	611,044,201.85	4,746,862,560.29
Greece.....	15,000,000.00	375,000.00	15,375,000.00
Italy.....	1,648,034,050.90	243,480,583.37	1,891,514,634.27
Liberia.....	26,000.00	2,868.85	28,868.85
Roumania.....	23,205,819.52	3,345,557.51	26,551,377.03
Russia.....	187,729,750.00	34,521,082.41	222,250,832.41
Serbia.....	26,126,574.59	3,961,136.17	30,087,710.76
Totals.....	\$9,386,422,556.14	\$1,386,762,586.39	\$10,773,185,142.53

sums due, and each of the debtor countries has made some interest payments. Nevertheless the total amount due is increasing instead of diminishing, adding month by month to the sums due our government. In the Treasury offices at Washington are the promissory notes evidencing these obligations, slips of paper signed by the representatives of the powers concerned. The earlier certificates were payable at fixed maturity dates, all of which are now past, and each is now a demand note at 5 per cent per annum, convertible, if requested by the Secretary of the Treasury of the United States, into 5 per cent bonds. Further details need not be added, as some of them are altered by later events and by legislation, notably the Act of February 9, 1922, creating the World War Foreign Debt Commission and specifying some of the terms under which this commission may arrange for the funding of the loans.

The status of these obligations (by countries), on August 21, 1922, was as shown in the table on the preceding page. (Interest accrued and remaining unpaid is given as of the last interest dates, which were April 15, 1922, for

some, and May 15, 1922, for others.)

Second in the list are the amounts due to the United States Government on account of sales of surplus war supplies, the total due on August 21, 1922, being \$592,621,265.03. The details are shown in the table below.

It will be noticed that the largest sum, \$407,341,145.01, is due from France.

Next are advances by the American Relief Administration, totalling \$96,286,331.86, and finally \$62,869,129.73 due to the United States Grain Corporation.

Combining this second group of items with the first, there was a total of \$11,524,951,869.15 due to the United States Government from twenty foreign governments on August 21, 1922. All the governments are European with the exception of Armenia, Cuba, Liberia and Nicaragua, whose combined obligations are only \$21,577,132, of which \$13,637,174 is due from Armenia. The totals are brought together on page 4.

Considering for convenience that the population of the continental United States is an even 100,000,000 (it was officially estimated as 109,743,-

SUMS DUE FROM SALES OF WAR SUPPLIES (WITH ACCRUED AND UNPAID INTEREST ON LAST INTEREST DATE PRIOR TO AUGUST 21, 1922)

COUNTRY	PRINCIPAL SUM	INTEREST ACCRUED AND UNPAID	TOTAL SUMS DUE
Belgium.....	\$29,872,732.54	.....	\$29,872,732.54
Czechoslovakia.....	20,612,300.11	\$2,897,769.12	23,510,069.23
Estonia.....	12,213,377.88	1,832,006.70	14,045,384.58
France.....	407,341,145.01	.....	407,341,145.01
Latvia.....	2,521,869.32	262,014.20	2,783,883.52
Lithuania.....	4,159,491.96	623,923.80	4,783,415.76
Nicaragua.....	170,585.35	.....	170,585.35
Poland.....	59,678,604.07	6,804,793.22	66,483,397.29
Roumania.....	12,922,675.42	1,938,401.34	14,861,076.76
Russia.....	406,082.30	10,152.06	416,234.36
Serbia.....	24,978,020.99	3,375,319.64	28,353,340.63
Totals.....	\$574,876,884.95	\$17,734,380.08	\$592,621,265.03

AMOUNTS DUE AS ACQUIRED BY THE AMERICAN RELIEF ADMINISTRATION ON ACCOUNT OF RELIEF
(WITH INTEREST ACCRUED AND UNPAID ON LAST INTEREST DATE PRIOR TO AUGUST 21, 1922)

COUNTRY	PRINCIPAL SUM	INTEREST ACCRUED AND UNPAID	TOTAL SUMS DUE
Armenia.....	\$8,028,412.15	\$1,204,261.83	\$9,232,673.98
Czechoslovakia.....	6,428,089.19	964,213.38	7,392,302.57
Estonia.....	1,785,767.72	257,618.96	2,043,386.68
Finland.....	8,281,926.17	1,012,436.10	9,294,362.27
Latvia.....	2,610,417.82	391,562.67	3,001,980.49
Lithuania.....	822,136.07	123,320.40	945,456.47
Poland.....	51,671,749.36	7,750,762.41	59,422,511.77
Russia.....	4,465,465.07	488,192.56	4,953,657.63
Totals.....	\$84,093,963.55	\$12,192,368.31	\$96,286,331.86

AMOUNTS DUE AS ACQUIRED BY THE UNITED STATES GRAIN CORPORATION ON ACCOUNT OF THE SALE
OF FLOUR (WITH INTEREST ACCRUED AND UNPAID ON LAST INTEREST DATE PRIOR TO
AUGUST 21, 1922)

COUNTRY	PRINCIPAL SUMS	INTEREST ACCRUED AND UNPAID	TOTAL SUMS DUE
Armenia.....	\$3,931,505.34	\$472,995.05	\$4,404,500.39
Austria.....	24,055,708.92	2,165,013.81	26,220,722.73
Czechoslovakia.....	2,873,238.25	344,788.60	3,218,026.85
Hungary.....	1,685,835.61	202,300.28	1,888,135.89
Poland.....	24,312,514.37	2,825,229.50	27,137,743.87
Totals.....	\$56,858,802.49	\$6,010,327.24	\$62,869,129.73

000 on July 1, 1922), this is an average of \$115.25 per capita if divided evenly among our population. This part of our financial interest in Europe is therefore a large one, and reflection on its meaning does not lessen its significance. There is going on at present a large amount of discussion regarding its reduction or cancellation. The position of our government, and undoubtedly that of the vast majority of the American public, is against any reduction of the claims, but no matter what changes may or may not come, it will be helpful to remember just what lies behind these promissory notes in our possession.

These notes are acknowledgments that for several years (1917 to date)

our government raised funds, chiefly through the sale of Liberty bonds, and from the proceeds of these sales placed certain large sums to the credit of the foreign governments named. With these funds there were purchased large quantities of commodities which were shipped (chiefly) to Europe during the war and post-war period. These goods were the result of large expenditures of capital and labor. Their shipment was made possible because millions of Americans worked and economized. With their savings they bought bonds, and thus furnished our government with funds that were turned over to the representatives of other governments and utilized to purchase supplies in our markets.

STATEMENT SHOWING OBLIGATIONS OF FOREIGN GOVERNMENTS HELD BY THE UNITED STATES
(INCLUDING THOSE HELD BY UNITED STATES GRAIN CORPORATION), INTEREST ACCRUED AND
UNPAID THEREON UP TO AND INCLUDING THE LAST INTEREST PERIOD, AND INTEREST HERETO-
FORE PAID

COUNTRY	PRINCIPAL AMOUNT OF OBLIGATIONS	INTEREST ACCRUED AND UNPAID UP TO AND INCLUDING THE LAST INTEREST PERIOD	TOTAL INDEBTEDNESS	INTEREST HERETOFORE PAID
Armenia.....	\$11,959,917.49	\$1,677,256.88	\$13,637,174.37	.....
Austria.....	24,055,708.92	2,165,013.81	26,220,722.73	.....
Belgium.....	377,123,745.94	51,391,987.94	428,515,733.88	\$14,609,062.01
Cuba.....	7,740,500.00	.....	7,740,500.00	1,859,733.14
Czechoslovakia...	91,887,668.65	12,797,876.74	104,685,545.39	304,178.09
Estonia.....	13,999,145.60	2,089,625.66	16,088,771.26	.....
Finland.....	8,281,926.17	1,012,436.10	9,294,362.27	.....
France.....	3,340,857,593.20	430,049,062.65	3,770,906,655.85	170,304,490.63
Great Britain *...	4,135,818,358.44	611,044,201.85	4,746,862,560.29	250,132,135.50
Greece.....	15,000,000.00	375,000.00	15,375,000.00	1,159,153.34
Hungary.....	1,685,835.61	202,300.28	1,888,135.89	.....
Italy.....	1,648,034,050.90	243,480,583.37	1,891,514,634.27	57,598,852.62
Latvia.....	5,132,287.14	643,576.87	5,775,864.01	126,266.19
Liberia.....	26,000.00	2,868.85	28,868.85	861.10
Lithuania.....	4,981,628.03	747,244.20	5,728,872.23	.....
Nicaragua.....	170,585.35	.....	170,585.35	.....
Poland.....	135,662,867.80	17,380,785.13	153,043,652.93	1,290,620.78
Roumania.....	36,128,494.94	5,283,958.85	41,412,453.79	263,313.74
Russia.....	192,601,297.37	35,019,427.03	227,620,724.40	7,717,333.43
Serbia.....	51,104,595.58	7,336,455.81	58,441,051.39	636,059.14
Totals.....	\$10,102,252,207.13	\$1,422,699,662.02	\$11,524,951,869.15	\$506,002,109.71

* Includes \$61,000,000 of British obligations which were given for Pittman silver advances and for which an agreement for payment has been made.

Cuba pays interest as it becomes due.

No interest due on Nicaraguan notes until maturity, as is also the case with certain Belgian obligations aggregating \$2,284,151.40.

August 21, 1922.

No discussion is complete that overlooks the facts that these obligations represent toil and saving by the American public, and that if the advances are repaid, thus permitting the retirement of these bonds, the financial burdens of the American taxpayer can be reduced.

Nor is any analysis complete that ignores the significance of payments of interest and repayments of principal. In later chapters the matter will be discussed more fully, but we may pause here to observe that these payments to us will involve labor and economy by

our debtors. The people of Great Britain, for example, must labor and save in order to pay heavy taxes. With the proceeds of these tax payments the British Government will buy New York drafts and then transfer these credits to our Treasury. For us the creation of these credits abroad meant sacrifice, and their repayment means sacrifice on the part of our debtors. The notes are pieces of paper, but are much more. They represent human effort and saving—in the past for us—in the future for those who must repay.

OUR HOLDINGS OF EUROPEAN
SECURITIES

But these sums, vast as they are, do not include all that is due us from Europe. They are the amounts due to our government from the governments of certain foreign countries. At the outbreak of the war the securities (stocks, bonds and notes) of American states, municipalities and private corporations were held in Europe in large amounts. The totals could not be known with precision, but were conservatively estimated at \$4,000,000,000.

During the war many of these were sold back to us, and there was soon started a sale of new European securities in our markets. The first important issue of this sort was the \$500,000,000 Anglo-French loan in 1915. It has been succeeded by numerous other issues not only by governments, national and local, but also by corporations. These sales are continuing, as is shown by the estimate of the Guaranty Trust Company that foreign governments, municipalities and corporations offered in the markets of the United States securities (exclusive of refunding issues) to the amount of \$575,320,000 in 1921 and \$531,593,000 from January to June, 1922, a total of \$1,106,913,000, most of which is still outstanding. Of these issues during the year and a half \$342,315,000 or about 30 per cent, were European.¹ But although 70 per cent of the issues were the securities of other countries than Europe, many being from South America, the welfare of these countries is so closely identified with that of Europe that we have become through them more than ever concerned with Europe's prosperity.

¹ These estimates are made by the Guaranty Trust Company of New York at the request of the Federal Reserve Board and are published in the *Federal Reserve Bulletin*, September, 1922.

Just how many foreign securities are owned in the United States today it is not easy to determine. Professor John H. Williams has estimated that foreign securities to the amount of \$3,930,645,000 were held in the United States at the end of 1921.² If we add to this the \$531,593,000 of new loans during the first six months of this year the total is \$4,462,238,000. How much of this is European the writer has not attempted to ascertain but it would certainly not be excessive to assume that at least one-third or \$1,500,000,000 may be so classified. Especially is this so when we again remind ourselves that the purchase of any foreign securities adds to our dependence on every part of the world.

But still the list is not complete. In addition to the \$11,524,951,819.15 due to our government and the assumed \$1,500,000,000 due to private individuals and corporations who own European stocks and bonds, there are other items due to American exporters and manufacturers who have shipped goods abroad and for one reason or another have not yet received payment. These amounts do not appear in the form of stocks or bonds, and are said to be an "unfunded" or "floating" debt. Numerous estimates have been made, but they are for different dates, and do not in every instance attempt to include the same items. When these differences are added to the inherent difficulties of making an estimate, one need not be surprised that the results do not agree.

Details need not be cited here, but several of the conclusions may be briefly stated. The Division of Analysis and Research of the Federal Reserve Board, in the *Federal Reserve Bulletin* for September, 1920, estimated the amount at about \$3,000,000,-

² *The Review of Economic Statistics*, July, 1922, p. 213.

000, from which certain deductions should be made. Dr. B. M. Anderson, Economist of the Chase National Bank, estimated³ that on September 15, 1920, this unfunded debt amounted to over \$3,500,000,000. Professor John H. Williams, of Harvard University, placed the amount much lower,⁴ contending that on December 31, 1920, the amount probably did not exceed a billion dollars. In November, 1921, the Federal Reserve Board estimate for October 1, 1921, was \$3,408,000,000, and in February, 1922, their estimate for January 1, 1922, was \$3,400,000,000. In each estimate offsets were mentioned, but their amounts were not estimated. Next is the estimate of Professor David Friday⁵ in April, 1922, that the amount is approximately \$3,000,000,000. Finally is the latest estimate by Professor Williams,⁶ who contends that at the end of 1921 the balance was no more than a billion dollars and was probably much less.

Without attempting any independent estimate, let us accept Professor Williams' estimate of \$1,000,000,000, the lowest that has been made. Adding the three items, we have the following result:

Debts of European Governments to the United States Government.....	\$11,524,951,869
European Securities Privately Held in the United States.....	1,500,000,000
Unfunded Debt.....	1,000,000,000
Total.....	\$14,024,951,869

Again expressing it in per capita terms, we may say that Europeans are our debtors to the amount of \$140.25

³ *The Chase Economic Bulletin*, October 5, 1920.

⁴ *Review of Economic Statistics*, Supplement, June, 1921, pp. 199-205.

⁵ *Manchester Guardian Commercial*, Reconstruction in Europe, Section One, p. 19.

⁶ *The Review of Economic Statistics*, July, 1922, pp. 201-14.

per capita. If we wish to express it in terms of the hypothetical family of five, we may say that it is over \$700 per family. Such a method of stating it may be open to some slight misunderstanding, but at least has the merit of making the amount vivid.

Whether these amounts are all collectible we are not now endeavoring to determine. No allowance has been made for losses of any kind. On the other hand, there are not included such items as American holdings of European paper currencies, which are doubtless large. Mr. Frank A. Vanderlip⁷ refers to the speculation in the German mark as "somewhere between sixty and eighty billion marks." The economist of one of the largest of the German banks told the writer that his estimate of the amount of German marks, meaning notes of the Reichsbank, held abroad was forty billion marks. *The World* (New York) on October 3, 1922, published an estimate that Americans had purchased 80,000,000,000 German paper marks since 1918; that \$960,000,000 had been paid for them; and that their value is \$904,000,000, the mark on that date being quoted at \$0.0007. On October 7, 1922, the mark was quoted in New York at \$0.00041¼. There is still speculation in all of the European currencies, and many are held in America.

One of the difficulties in the discussion of such questions is that of stating the economic and financial facts in such a manner as to make vivid their real connection with every-day human experiences. The sums just enumerated are large, but we have for some years now become accustomed to saying billions whereas formerly we said millions, or perhaps even thousands. That these vast sums are merely statements in monetary terms of the worth of great stores of food, clothing, build-

⁷ *What Next in Europe*, p. 25.

ing materials, etc., is not easy to keep in mind. The financial terminology is important, in fact necessary, but it is often helpful to put it aside for a moment in order to reveal what is beneath. For years we have been sending to Europe agricultural products, raw materials, and articles partly or wholly manufactured. In return we have received from Europe shipments of similar articles, but of a value much less than that of our exports. Just how great this difference has been is shown by the figures in the table below for the nine fiscal years 1914 to 1922 both inclusive.

The total of export balances, amounting to \$23,029,251,695, must not be misunderstood. First there should be added to it merchandise shipped during the war by the United States Government for the use of the Allies, but not recorded in the official statistics. If these amounts were included the total balance would be considerably enlarged. From this total there should then be deducted numerous other items, leaving the net amount considerably smaller. Extensive allowances should also be made for the numerous triangular trade relationships, as, for example, that between the United States, South America and

Europe. But the important thing is to visualize these shipments as quantities of merchandise filling ship after ship, some going to Europe, some coming from Europe, but all of it a collection of definite tangible objects, the result of the toil of millions of human beings. To right the balance, or even to keep up the promised interest payments, the movement must be reversed, and the toil of millions of people in Europe must be devoted to the production of countless shiploads of merchandise to be sent to us.

Of course this simplifies the question too much, for in addition to these movements of merchandise there are shipments of gold, and also those numerous and highly important and very large "invisible" items—payments for carrying freight, expenditures of tourists, interest and dividend payments. All of these make an accurate estimate of the situation extremely difficult. They have been allowed for in the totals given earlier in this chapter, but in no way change the general statement we have made. For years the results of much of our work and economy have gone to Europe as shipments of merchandise, and Europe is now indebted to us, under formal promise to send back merchandise or render services of

TRADE BETWEEN THE UNITED STATES AND EUROPE

FISCAL YEAR (ENDING JUNE 30)	IMPORTS FROM EUROPE TO THE UNITED STATES	EXPORTS FROM THE UNITED STATES TO EUROPE	EXPORT BALANCE
1914.....	\$895,602,868	\$1,486,498,729	\$590,895,861
1915.....	614,354,645	1,971,434,687	1,357,080,042
1916.....	616,252,749	2,999,305,097	2,383,052,348
1917.....	610,470,670	4,324,512,661	3,714,041,991
1918.....	411,578,494	3,732,174,352	3,320,595,858
1919.....	372,951,315	4,644,937,841	4,271,986,526
1920.....	1,179,400,699	4,863,792,739	3,684,392,040
1921.....	937,868,864	3,408,522,000	2,470,653,136
1922.....	830,473,712	2,067,027,605	1,236,553,893
Totals.....	\$6,468,054,016	\$29,498,205,711	\$23,029,251,695

an equivalent value plus annual shipments or services as interest payments. To a limited extent only can substitutes for the merchandise be offered or accepted. Europe is heavily in our debt, a fact of great concern to her and to us. As the creditors we have every reason for wishing to understand the condition of our debtors.

The total of our European credits is, then, over \$14,000,000,000. But, strange as it may seem, this is less important than other aspects of our relations to Europe. The complexity of modern economic organization furnishes many curious and perplexing problems, but one of the hardest to remember is the fact that our welfare is so dependent on keeping the economic machinery going. Our accumulated debits or credits at any particular time are unquestionably important, but even more so is the fact that supplies of raw materials must be kept moving into factories and finished products must be sold in widely scattered markets. Foodstuffs must be regularly available and workers must be kept employed. Factories must be kept going and trains must not stop. Any cessation of this activity even for a short time is of far more importance to humanity than the readjustments of relationship between debtor and creditor. A railroad may become bankrupt and go through a reorganization with serious and regrettable losses to certain stockholders and bondholders. But if these adjustments can be accomplished without a cessation of traffic, the community as a whole suffers far less than it would if transportation service were actually discontinued even for a short time.

Let us, then, notice a few facts about our economic relations with Europe that will help us to understand our long-run dependence on her, as well as the amount of her accumulated debt to

us. One of these facts is the volume of our direct trade relations with her year after year, as shown by the figures for imports and exports just given. The amounts even before the war were large and were increasing from year to year, yet their real significance can be made much clearer by referring to one or two matters that may easily be overlooked.

Those engaged in foreign trade or indirectly interested in its promotion often exaggerate its importance. At the same time, others are prone to minimize it, insisting that after all it is far less important than domestic trade and can be largely ignored. An appraisal of its significance is worth while. This may be made clear by referring to (1) the volume of this trade both absolute and relative; (2) any changes that are occurring in these amounts; (3) the importance of this foreign trade as compared with our domestic trade; and finally (4) the significance to modern industry of losing even a relatively small percentage of trade, either domestic or foreign.

THE VOLUME OF OUR TRADE WITH EUROPE

In our very pardonable enthusiasm over the development of trade with the newer parts of the world, there is some danger of overlooking the fact that, after all, Europe is our best customer and hence the one whose prosperity most concerns us. This is quite clearly shown by the following table.^a The figures given are for calendar years and not for fiscal years as in our statement of trade with Europe on page 7.

Our trade with Europe before the war was not only large but growing. Exports to Europe increased from \$1,136,000,000 in 1910 to \$1,479,000,000 in 1913, while our imports from Europe increased from \$806,000,000 to \$892,-

^a Taken from an article by Professor G. B. Roorbach, *The Annals*, July, 1922, p. 69.

TRADE OF THE UNITED STATES WITH EUROPE 1910-1921

EXPORTS				IMPORTS		
YEARS	TOTAL MILLIONS OF DOLLARS	TO EUROPE	PERCENTAGE TO EUROPE	TOTAL MILLIONS OF DOLLARS	FROM EUROPE	PERCENTAGE FROM EUROPE
1910.....	1,710	1,136	65.10	1,557	806	51.76
1911.....	2,013	1,308	63.84	1,527	768	50.30
1912.....	2,170	1,342	60.87	1,053	819	45.57
1913.....	2,428	1,479	59.98	1,813	892	49.25
1914.....	2,329	1,486	62.86	1,894	895	47.29
1915.....	2,716	1,971	71.21	1,674	614	36.70
1916.....	4,272	2,999	69.21	2,197	616	28.04
1917.....	6,227	4,324	68.75	2,659	610	22.96
1918.....	5,839	3,732	63.04	2,946	411	13.97
1919.....	7,750	5,187	65.50	3,904	750	19.22
1920.....	8,080	4,466	54.27	5,278	1,227	23.26
1921.....	4,485	2,364	52.70	2,509	765	30.50

000,000 in the same period. These totals are so large that their importance needs no emphasis, but attention should be called to their amounts as compared with our total foreign trade. In 1910 Europe took 65.1 per cent of our exports, and in 1921 still took 52.7 per cent, or over one-half. In 1910 she furnished us with 51.76 per cent of our imports, and in 1921 with 30.5 per cent.

Trade with Europe has been and will doubtless for years to come continue to be our most important foreign trade. The decline in our exports to Europe in 1921 is in part to be explained by the appalling situation in Eastern Europe, by the cessation of abnormal war demands, by the fall in the price level, and by the accompanying business depression which has affected the intricate industrial life of Western Europe even more seriously than other parts of the world. While our imports from Europe are smaller in amount, it is to be observed that they have grown steadily since the low point in 1918, with the exception of the very large increase in 1920 followed by the decline

in 1921. Also the amount of our imports from Europe compared with our total imports, which declined from 51.76 per cent in 1910 to 13.97 per cent in 1918, has steadily increased since the latter date until it was 30.5 per cent in 1921.

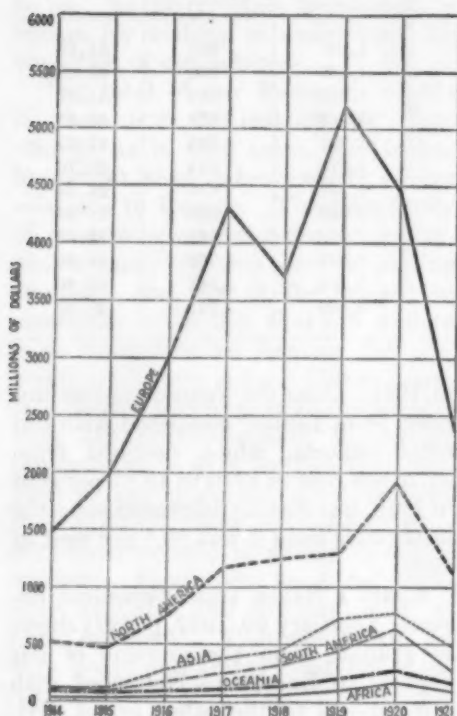
Chart I (taken from *Commerce Reports*, February 20, 1922, p. 427) shows in graphic form the amount of our exports to Europe as compared with our exports to the other grand divisions.

Chart II (also taken from *Commerce Reports*, February 20, 1922, p. 427) shows similarly both the absolute and the relative importance of our imports from Europe. Prior to the war they were much greater than from any other grand division, and in 1921 again attained a position of supremacy.

These statistics and charts furnish abundant warrant for several conclusions. Our trade with Europe has been our most important trade in the past, and has been rapidly growing in its absolute amount. Europe's dense population and high standard of living (as compared with, say, the tropics) are

the explanations, and furnish the basis for an enormous trade in the future. There is every reason to assume that under favorable conditions the rapid growth of recent years will continue.

CHART I



Exports from the United States by grand divisions

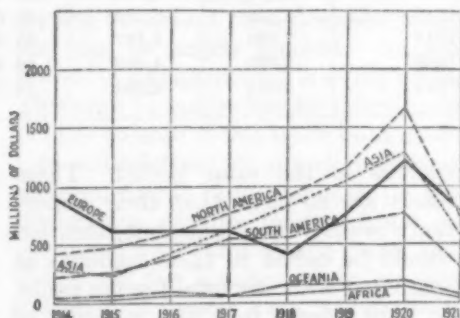
In spite of the post-war handicaps and the world-wide business depression, large gains are already noticeable.

Relatively, also, Europe is still far in the lead. This relative supremacy is lessening with the economic development of other parts of the world, but Europe is still ahead, and will decline in rank slowly. She has been and still is our best customer and our largest source of supply. She may as time passes decline slowly in relative importance, but, short of her complete economic collapse, our trade with her will steadily and rapidly increase.

HOW IMPORTANT IS FOREIGN TRADE?

Advocates of a policy of economic isolation often argue that the significance of foreign trade is greatly exaggerated, that its amount is far less than that of our domestic trade, and that we should direct our attention more and more to the control and expansion of our home markets, becoming more rather than less independent. To what extent are these contentions true?

CHART II



Imports into the United States by grand divisions

No one who has not made the attempt can understand the difficulties there are in estimating the relationship between domestic and foreign trade. It is not necessary to enumerate the difficulties here, but merely to state that the conclusion usually reached has been that foreign trade is about 10 per cent of the total.⁹ This was considerably increased during the war, but has probably declined to approximately the pre-war percentage.

This percentage seems relatively small, and hence not important. Its complete loss does not appear serious, and certainly a partial loss does not seem very vital. There are, however, several important considerations that must not be overlooked.

⁹ See certain estimates by Dr. B. M. Anderson, Jr., as quoted in Chapter VI.

One fact to be remembered is that this 10 per cent applies to our trade as a whole, and not to any particular commodity. Our cotton production in 1913 was 13,703,421 bales, and our exportation of raw cotton in that year was 9,199,093 bales, or 67.13 per cent, an amount that does not include our exports of cotton in manufactured form. In the case of this one product it is not a question of 10 per cent, but of 67 per cent that went abroad. Just how serious this is will be realized if one recalls what occurred in 1914, when the outbreak of the war in Europe temporarily stopped our cotton exports. The distress suffered by the farmers of the South was extreme, and affected not only cotton growers and others directly interested, and all the industries of the South which so closely depend on the prosperity of cotton, the main Southern staple, but spread with varying degrees of severity to nearly all parts of the country. It included the railroads, whose traffic and earnings were reduced, Southern manufacturers and dealers in all lines, because the purchasing power of their customers was lessened, and through them manufacturers, wholesalers, bankers and others in all parts of the country.

To cotton, then, foreign trade is of prime importance. And what is true of cotton is true to only a less degree of wheat, meat products, iron and steel, harvesting machinery, oil, etc. To many particular industries exports are more than 10 per cent of the total trade, and the complete loss of foreign markets would mean disaster, while even a partial loss means great hardship. Nor is this hardship confined to the industries directly affected, but spreads to all other industries directly or indirectly dependent upon them.

What is true of cotton is true of many other commodities, even if to a

somewhat less degree in some cases. But even cotton does not have to face some of the difficulties that are encountered by a manufacturer. A grower of cotton has a considerable investment in land and tools, but still his total is not one that forces upon him a heavy overhead expense. Low prices and lack of a market mean distress, but there is a certain kind of difficulty he does not have. He can curtail his output, and as he does so he will correspondingly reduce his expenses or nearly so. A loss of a part of his market, say 10 per cent, is serious, but not nearly so serious as a similar loss to most manufacturers.

This may be illustrated by reference to an estimate of the Interstate Commerce Commission made a few years ago. It was to the effect that of every dollar spent by the railroads of the United States, over sixty cents was used to meet so-called overhead or constant expenses. Overhead expenses are those that continue without reference to the volume of business done. Thus the interest on bonds is a definitely fixed item and must be paid, no matter whether traffic is large or small. Similarly with many other items. Insurance charges, rentals, many salaries, as well as depreciation on property that deteriorates even when not in use, are other illustrations. On the other hand, many expenses are variable, fluctuating with the amount of traffic handled. Wages of those employees that are dropped from the pay-roll in dull times, fuel consumed in the locomotives, and costs of loading and unloading freight will do for illustrations.

It is this fact about the railroads that makes our numerous discussions of changes in freight rates so important. A very large fraction of the railroad's expenses is definitely settled. If the road is doing well and there is a sudden

decline of say 10 per cent in business handled, this does not mean a corresponding decline in expenses. Instead, most of the expenses continue, and bankruptcy may threaten a weak road. Similarly a gain of 10 per cent in traffic and in receipts does not involve a corresponding increase in expenses, for many expense items remain entirely unchanged. An apparently slight increase in receipts may accordingly mean much more than a corresponding increase in net earnings. What seems to be only a slight alteration in the volume of business or in the amount of income may change success to failure or failure to success.

While overhead expenses are found in all lines of business, they are especially heavy in those lines where there is a large capital investment on which interest and depreciation charges must be met. As land values rise this is increasingly true of agriculture, but it is of course particularly true with our railroads and with our manufacturing establishments. One of the most forceful statements of this was made a year or two ago by President James A. Farrell of the United States Steel Corporation, in an address before the National Foreign Trade Council, when he said:

In every business there is a part of the production roughly estimated at the least at 20 per cent that cannot remain unsold if the first 80 per cent of the sales are to prove profitable. Remove this last 20 per cent and the whole operation will cease to show a profit.

Very few manufacturing establishments operate for any great length of time at 100 per cent of their capacity. Instead, operation at from 60 to 80 per cent is more nearly a normal figure. If a given establishment is running at, say, 80 per cent of capacity, and if, as Mr. Farrell states, a reduction below that figure means the disap-

pearance of the margin of profits, then a loss of foreign orders is a serious matter. It is the difference between operation at a profit and operation at a loss.

Then, too, it must be remembered in this connection that there is no such thing as an "industry as a whole." An industry is made up of a number of particular plants probably distinct from each other in ownership and operation. Some of these plants may sell a large amount abroad and others little. Some are operating normally with a generous amount of profit, others operate with little or no profit. A loss of even a very small percentage of business for any extended period of time means bankruptcy for these marginal plants. It is often necessary to think in terms of particular establishments.

Finally, it should be again noted in this connection that a plant, *e.g.*, one that is manufacturing iron and steel, loses not only directly, but indirectly, through a slump in foreign orders. Its own foreign sales are reduced, but the effect of a depression abroad is so widespread in the domestic market that home orders also decline, the reduction in business being a combination of the foreign and domestic.

The significance of this is increased by the fact that in recent years the character of our foreign trade has undergone a change. We are rapidly passing out of the stage when we furnished only raw materials and foodstuffs to other countries. Just prior to the late war these changes were becoming very noticeable. Our exports of foodstuffs had declined and our imports had increased until, in 1912, and again in 1914, we had an import balance. Excluding raw cotton, our exports of crude stuffs had become less than our imports, while the imports were growing both in quan-

tity and variety. Manufactured articles ready for consumption led our exports in 1913.¹⁰

With these changes stability of markets is of more and more importance. An industrial organization, as contrasted with an agricultural one, means larger capital investments and heavier overhead expenses. A free flow of raw materials (often from abroad) and a steady market become necessary if disastrous irregularities and business failures are to be avoided. As we become more dependent on outside supplies of raw materials and food-stuffs, every legitimate encouragement must be given to both import and export trade. The alternative is to reverse the development of years and, by attempting to depend more on ourselves, force a painful readjustment of our whole economic organization.

¹⁰ For a thorough and able analysis of these changes see an article by Professor G. B. Roorbach: "Some Recent Tendencies in the Development of the Foreign Trade of the United States," *The Review of Economic Statistics*, May, 1920, p. 125.

Aside from the temporary hardship, this would mean in the end a lower general level of well-being, with nothing gained but the empty satisfaction of calling ourselves less dependent than before.

CONCLUSIONS

This survey has presented to us: (1) our extensive European credits, both government and private, totalling at least \$14,000,000,000; (2) the growing importance of our foreign trade because of its increasing size and because of its changing character; (3) the serious consequences of a decline in this trade because many industries and many particular plants are so directly dependent on it, and because all of us are indirectly affected by it; and (4) the relatively important position of our trade with Europe.

The next chapter will briefly survey the European situation of the last few months as shown by several indices, and will be followed by a series of chapters on conditions in the leading countries of Europe.

Chapter II

THE PRESENT SITUATION IN EUROPE

AT the first plenary session of the International Economic Conference at Genoa, held in April and May last, Signor Facta, the president of the conference stated:

Great suffering and misery still exist in not a few countries, and certain of the populations of Europe are afflicted with disease, privation and hunger. There are about 300 million men in the world who are not producing, or not producing sufficiently, for want of the means of labor and transport.

A few moments later Mr. Lloyd

George, after referring to the late war, declared:

Europe, exhausted with its fury, with the loss of blood and treasure which it involved, is staggering under the colossal burdens of debt and reparation which it entailed. The pulse of commerce is beating feebly and wildly. In some lands, an artificial activity is stimulated either by demands for repairing the ravages of war or by burning up the resources of the world accumulated by generations of thrift by the frugal and industrious among the people. But legitimate trade, commerce and industry are everywhere dis-

organized and depressed. There is unemployment in the West; there is famine and pestilence in the East.

Viscount Ishii of Japan, referring to his own country, said that in spite of the fact that her geographical situation "renders her less directly sensible to the troubles of Europe, she herself has suffered, and still has to endure a serious economic crisis." Dr. Wirth, speaking for Germany, maintained that "today the whole world is economically sick, and that it is in danger of an infection which would be far more dangerous for the future of mankind than those epidemics with which mankind is scourged from time to time."

That these leaders had in mind economic rather than merely political forces, and that they recognized how closely they are interrelated is evident from the quotations given and from such other statements as that of Signor Facta:

The agenda of the conference includes political, economic and financial questions, but it is obvious that these questions are closely connected with each other. Economics and finance are indeed essential factors, and tend to play an increasingly important part in international politics.

Dr. Wirth emphasized the situation somewhat differently when he said:

All of us who are here assembled must make up our minds to recognize economic problems as such as strictly economic problems, and to separate them from the political aims and differences which can only obscure our judgment as to the real nature of our troubles.

These quotations reflect to some extent the particular interests of the various speakers, but they agree in presenting a picture of world-wide economic distress, and in urging that economic and financial measures must be largely depended on for relief. The United States Government re-

fused to participate in the Genoa Conference for various reasons, chief among the ones stated being that it was not to be primarily an economic conference. This was a correct prevision, but it seems certain that the members of the conference were deeply disturbed over the economic situation.

Francesco Nitti, former premier of Italy, in his recent volume, *Peaceless Europe*, refers to conditions in even more emphatic language. Here and there we find such phraseology as the following:

Europe, which is gradually sinking to the condition of Quattrocento Italy, without its effulgence of art and beauty.

The growing dissolution of Europe.

Europe . . . is threatened with a decline and a reversion to brutality which suggest the fall of the Roman Empire.

These and similar statements reflect Signor Nitti's conviction that the economic, political and social situation in Europe is extremely serious and even dangerous.

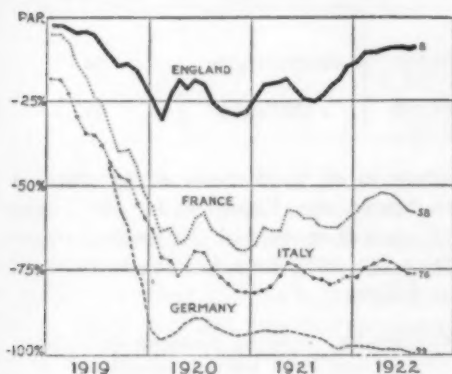
In our attempt to make an appraisal of Western Europe, we shall limit ourselves to the economic facts. This is with no thought that they are the only ones of importance or necessarily the most important. They play so large a part, however, in the attempt to adjust difficulties, and are so much a barrier to recovery that they need to be fully set forth. American interest is by no means limited to them, but they are the field of this particular study.

Are the opinions of the great statesmen just quoted an accurate picture of Europe's economic position today? Or are they colored by the personal positions and perhaps the ambitions of the speakers? Are the figures of speech which they have employed any more than a forceful exaggeration of a situation unusually bad, but

by no means so hopeless as their words would indicate? What will a simple, clear statement of fact reveal?

This chapter will be confined to setting forth several of the more obvious indices of economic conditions, particularly those that picture the relationship between Europe and the United States. In succeeding chapters more detailed attention will be given to each of a half-dozen countries.

One index of a country's condition is the position of its money in terms of the money of other countries. This is expressed in the foreign exchange quotations about which all of us have learned so much in the last few years. During the war these quotations seemed strange and erratic, but when they are compared with those of post-war days, they seem to have been almost normal and steady. What has occurred during the last four years is pictured for several of the most important countries in the following chart.¹



For all of the countries named there is to be noticed a precipitous fall in the quotations during 1919 and the early part of 1920. Then there came a recovery followed by another decline

¹Taken, by permission, from the *Monthly Review of Credit and Business Conditions in the Second Federal Reserve District (New York)*, Sept. 1, 1922, p. 4.

in the latter part of the same year. During 1921 and 1922 the movement has been, on the whole, upward for England, France and Italy, reaching its highest point in May, 1922. England has thus far maintained that level, but French and Italian exchange have declined again, although both are still somewhat above their previous low levels. German exchange has continued to fall, quotations for the mark going to five one-hundredths of a cent, or about two-tenths of one per cent of its nominal par value of 23.8 cents.

Two things immediately attract attention. One is the fact that for all the countries named the quotations are still very far below par. At the time this is written there is not a European country whose exchange is above par in terms of our dollar, and only two, Sweden and Switzerland, near enough to par for us to think of them as normal.

Another feature is that, although sterling exchange is holding its own, there has been in the last few months an ominous decline in the others. Whether this will continue or is merely a prelude to another upward movement remains to be seen; but the fall is pronounced enough to deserve careful attention.

Yet foreign exchange quotations are at the best a barometer and of importance only because of what they reflect. Perhaps an examination of the business situation behind these figures will be more encouraging.

In Chapter I (p. 7) we have given the trade between the United States and Europe during the last nine years. An examination of these figures shows that our imports from Europe were \$895,602,868 in 1914, and \$830,473,712 in 1922, each calculation being for the fiscal year. It will be noticed that there has been a decrease not merely from the high point of 1920 but about 7 per cent from the level

of 1914, whereas normally there would have been a rise.

In the same table it will be noticed that our exports to Europe, which were \$2,067,027,605 in 1922, are less than half the amount of 1920, but were still nearly 40 per cent more than in 1914, when they amounted to \$1,486,498,729. This looks encouraging until one remembers the complication introduced by the changing price level. Much of the decline in both exports and imports since 1920 may be explained by a fall in prices that may have serious consequences, but that does not reflect a decline in the physical volume of business. This is often emphasized, and rightly so, as encouraging optimistic conclusions. But when the comparison is made with 1914 and allowance is made for the

it should be pointed out that the fiscal year ending June 30, 1922, included the worst months of the business depression, and that there is already some improvement. Imports from Europe, which were \$54,718,229 in June, 1921, rose to \$76,399,752 in June, 1922. Exports, however, rose only from \$177,814,085 to \$186,246,240.

Exchange rates and foreign-trade figures are not at all encouraging. What of other signs? We are informed directly and indirectly that Europe cannot pay the debts it owes us; that the financial strain on banks and governments is so serious that bankruptcy constantly threatens. What are some of the facts supporting these contentions?

Reserves of the central banks are one index worth noticing. The per-

EXPORTS AND IMPORTS UNITED STATES TO EUROPE 1914 AND 1922

	1914	1922 (reduced by one-third)	Per cent 1922 of 1914
Exports from the United States to Europe.....	\$1,486,498,729	\$1,378,018,404	94
Imports from Europe to the United States.....	895,602,868	553,649,140	61

fact that the price level in the United States was for the fiscal year ending June 30, 1922, about 50 per cent above that of 1914, our conclusions must be modified. A comparison of the fiscal year ending June 30, 1922, with that of 1914 is shown in the table above.

Reducing the 1922 figures by one-third to allow for the fact that prices are about 50 per cent above the 1914 level shows exports are about 94 per cent of the 1914 level, and imports only 61 per cent. This calculation is a very arbitrary one and must not be considered as accurate, but it gives a more correct view than the figures as first stated.

While these figures are discouraging,

centage of gold reserve to deposit and note-issue liabilities for the banks of issue of several of the leading countries for 1913 and for June, 1922, is as follows:

PERCENTAGE OF GOLD RESERVE TO DEPOSIT AND NOTE ISSUE LIABILITIES

	1913 (per cent)	1922 (per cent)
Bank of England.....	44	29*
Bank of France.....	62	14
Bank of Germany.....	40	00.5
Italy (three banks of issue)†.....	53	6

* Includes gold held by Bank of England and by the Treasury as note reserve.

† Figures are for May instead of June, 1922.

In so far as the percentage of gold reserve to deposits and note issues may be of importance, there is certainly a serious change. Reports regarding the financial condition of the various governments are no less alarming. Last May England secured a balance in her budget for the coming year only by the elimination of her sinking fund, and opposition critics are loud in their denunciations of what they consider a dangerous optimism in many of the budget estimates. The French Government at the time of this writing has not decided how to meet a prospective deficit of 3,600,000,000 francs for the coming year, the proposals thus far made having been bitterly attacked. The Italian Government reports a deficit of 6,500,000,000 lire for the year just ended, and forecasts one of 4,000,000,000 lire for 1923. The German budget is in so chaotic a condition that any statements of the amount of the deficit for the current year would be worthless.

Certainly the external signs are

such as to warrant our concern over the condition of our debtors and customers. Moreover, we have referred to only four countries—those presumably of most importance to us. While some, as those neutral during the war, are in better condition, others, such as Austria, Poland and Russia, are still worse.

It is said that the United States must do something, and numerous attempts are being made to influence American public opinion. As usual, the statements made are supported by only a few facts, and they frequently picture only a part of the situation. Our attempt in this study will be to present all of the important economic facts that should be examined to help us understand conditions in the leading countries of Western Europe. With these before us, we can then analyze more intelligently the various propositions that are being made and can indicate, at least in outline, what measures, if any, we should adopt.

Chapter III

ITALY

In the first chapter of this study there was attempted an appraisal of the economic importance of Europe to the United States. The conclusion reached was that Europe is now in our debt, to an amount totalling perhaps \$14,024,951,869, and that we feel the creditor's natural concern over the status of outstanding accounts. But even more important is the fact that our economic organization is so closely interlaced with that of Europe, and so dependent from day to day on its proper functioning that we cannot ignore conditions there. Europe always has been and, for many years to come, will be more important to us than any other continent.

Our second chapter cited conditions abroad as they are represented by many observers and as they are revealed by a brief examination of exchange rates, trade movements, bank reserves and government budgets. This survey showed such grounds for concern that there seems ample warrant for looking more carefully into the situation.

Necessarily some limits must be set to such a study, and this has been done by choosing Italy, France, Germany, Great Britain and Belgium for special examination. This selection has been determined by a number of considerations. Eastern Europe has been eliminated because of the difficulties of

presenting an accurate picture of conditions where there is so much chaos, and because there is general agreement regarding the unfortunate state of affairs there. No attempt has been made to analyze conditions in such newer states as Czecho-Slovakia and Jugo-Slavia, because of their brief history and the consequent difficulties of reaching many conclusions as to what is at all normal for them, and because uncertainties may reasonably be expected in their early history. Moreover, their future depends largely on the stability of the older countries about them. Another reason for the choice is that the direct trade relations of the United States with the countries analyzed are for the most part more important than with the others. Finally, the writer has recently been in the countries chosen, and has had opportunity to check his conclusions. His choice of countries visited was of course determined by the considerations just mentioned.

ITALY'S RESOURCES AND POPULATION

First in the list is Italy. Her area prior to the war was 110,623 square miles, and her estimated population was 34,671,000, a square mile density of 313, which compares with about 31 for the United States in 1910. This dense population lives in a country which lacks fertility of soil, has no coal, and possesses but a very small amount of minerals. In the face of these physical handicaps she has supported a large population only at a low standard of living, the per capita income being estimated at \$112 per year just prior to the war.¹ (Per capita

income for the same year in the United States was \$335.) Considerable relief from the strain of supporting her growing numbers was secured by an emigration averaging 692,340 per year from 1910 to 1913. This not only kept down somewhat the number of people to be supported from the productivity of the home country, but these emigrants sent back each year considerable sums that aided in offsetting a heavy unfavorable balance of trade. A country lacking in coal could hardly be expected to develop large industries, yet Italy has in recent years done this, although having to rely on heavy imports of fuel while developing with considerable rapidity her large sources of water power.

Under these conditions Italy was, prior to the war, a country which was importing each year goods worth about 1,200,000,000 lire more than the value of her exports. This excess of imports amounted to 1,134,000,000 lire in 1913, and averaged 1,207,000,000 lire for the period 1909 to 1913. In order to make her problem of today clear, it is worth while to notice the nature of her foreign trade as it is shown by the following table:²

MERCHANDISE IMPORTS AND EXPORTS—
ANNUAL AVERAGE, 1909-13
(Million lire)

Merchandise	Imports	Exports
Foodstuffs	694	649
Raw materials	1,275	316
Semi-manufactured articles	636	582
Manufactures	814	665
	3,419	2,212

¹ See *Income in the United States*, by the National Bureau of Economic Research, Incorporated, p. 85. This estimate is adapted from that in an article by Sir Josiah Stamp in the *Journal of the Royal Statistical Society*, July, 1919.

² This table is taken from an article by Walter B. Kahn in *The Review of Economic Statistics*, April, 1921, p. 88. The article by Mr. Kahn is largely based on a study by Professor Giorgio Mortara entitled *Prospettive Economiche*.

The poverty of the soil of Italy and her lack of coal and minerals, together with the extensive industrialization, particularly in the northern part of the country, made necessary the importation of fertilizer, coal, iron, cotton, wool, cereals, etc., as well as shoes, cotton and woolen goods, machinery and other manufactured articles. It should be noticed that a considerable amount of food (694,000,000 lire) and raw materials worth 1,275,000,000 lire were being imported annually. Italy was depending on the outside world for an important amount of food and raw materials, and on foreign markets for foodstuffs, raw materials and manufactures amounting to 2,212,000,000 lire. Her combined imports and exports amounted to 5,631,000,000 lire, which is 162 lire or about \$32 per capita.

A difference of 1,207,000,000 lire had, of course, to be made up by certain so-called invisible items, there being four in Italy's case—remittances of her emigrants who sent funds back home, expenditures of tourists in Italy, freight earnings of her merchant marine and interest on her investments abroad, the first two being the most important.

ITALY'S STATE FINANCES

Another aspect of Italy's pre-war situation that calls for attention is the condition of her government financing. Her fiscal history has been one of extremes, varying from periods when the budget was well-balanced to the other extreme, when the deficits were large. In the three-year period 1911-14 just before the war, the deficits totalled 533,440,000 lire.³ By 1913 the gross

debt had become 15,069,000,000 lire, which was 434.7 lire or \$83.90 per capita.⁴

We have concentrated attention on just two features of the Italian pre-war situation, because they are the ones of most importance today, particularly to the United States. They may be summarized briefly. Italy is a densely populated country with a low standard of living. Before the war she had regularly an unfavorable balance of trade, the annual excess of imports being met by remittances of emigrants and by expenditures of tourists. Her tax system was on the whole a good one, but she had accumulated a very large public debt that was probably as heavy as her people could carry without a serious strain.

Details of Italy's war economics need not be recited, but we may keep our attention centered on the two items just mentioned—her balance of trade and her government finances. Her world interest centers on her ability to pay her way by delivering each year to the people of other countries goods and services whose value is sufficiently great to pay for the goods and services furnished by other peoples to her, and in addition meet at least the interest on her obligations held abroad. An analysis of these two questions will take us into several other features of her economic life, but they should be kept in mind as the important matters about which our interest centers.

ITALY'S TRADE BALANCE SINCE THE WAR

What is the condition of her balance of trade? The table on page 20 gives the figures for the period 1913 to 1921.

It should at once be pointed out

³ For an excellent analysis see "The Growth and Present Situation of the Public Finances of Italy," by Luigi Einaudi in *The Economic Journal*, December, 1915, p. 493. The statements of the government deficit are taken from that article.

⁴ League of Nations, *Memorandum on Public Finance*, 1922, pp. XVII and XVIII.

that these statistics furnish a number of difficulties. One is the change in the methods of calculating values employed by the Italian Statistical Department after July 1, 1921. The figures have, however, been corrected for this, and the items for 1921 and 1922 are comparable with those of previous years.

A difficulty much harder to correct is that afforded by the fluctuating value of the lire. Although in 1920 the import balance was over 15,000,000,000 lire, compared with a pre-war balance of 1,200,000,000 lire, and so

lire import balance of 1920 is reduced to 28.4 per cent of that amount, the resulting 4,273,488,864 lire⁵ is a sum more accurately comparable with the 1,207,000,000 lire, which was the annual average for the period 1909-13. It will be noticed that this amount for 1920 is about three and one-half times as large as that for the earlier date. A similar calculation for 1921 gives 1,655,637,984 lire, or about one and one-third times the pre-war balance.

It should be repeated that this is a very rough and very arbitrary calculation from which hasty conclusions

ITALIAN FOREIGN TRADE *

(lire, 000's omitted)

Year	Imports	Exports	Import Balance
1913.....	3,645,624	2,511,636	1,133,988
1914.....	2,923,344	2,210,400	712,944
1915.....	4,703,532	2,533,440	2,170,092
1916.....	8,390,244	3,088,284	5,301,960
1917.....	13,990,152	3,308,508	10,681,644
1918.....	16,038,672	3,344,712	12,693,960
1919.....	16,623,264	6,065,748	10,557,516
1920.....	26,821,620	11,774,124	15,047,496
1921.....	14,901,096	7,925,620	7,075,376

* These figures are prepared from the monthly averages as given in the *League of Nations Monthly Bulletin of Statistics*, June, 1922.

seems to be over twelve times as large, the burden must be considered in the light of the fact that in 1920 the lire was very greatly depreciated in terms of gold. Just how much to allow for this depreciation cannot readily be determined, but the difficulty involved may be clearly illustrated by very arbitrarily taking an average between the high and the low quotations for lire during 1920. The highest level was at the beginning of the year and was 39.1 per cent of gold parity, while the lowest was at the end, and was 17.7 per cent of gold parity. A simple arithmetical average of the two is 28.4 per cent. If the 15,047,496,000

should not be drawn. It indicates, however, that the unfavorable trade balance to be offset in 1920 was by no means so serious as the figures suggest if one allows for the depreciated lire. On the other hand, the 1,655,000,000 lire balance secured for 1921 is probably smaller than that of the average

⁵ Dr. Francesco Giannini, in *The Manchester Guardian Commercial*, "Reconstruction in Europe," Section One, p. 24, estimates this at 3,841,000,000 lire, and points out that in that year "remittances from emigrants were greatly reduced and the receipts from the tourist traffic were then almost negligible." It should be emphasized that our estimate in the text makes no pretense at being exact, but is presented merely to illustrate the principle involved.

year in the future, because 1921 was a year of such world-wide trade depression. A return of business to a more normal condition would presumably mean an increase of both imports and exports and probably a larger difference between them than that of 1921.

It seems, therefore, fair to conclude that developments to date indicate that Italy's trade balance shows a considerably wider gap to be filled by invisible items than in the years before the war. These items are chiefly two—emigrants' remittances and tourists' expenditures in Italy, and the depreciation of the Italian lire will correspondingly increase these amounts since the funds come from abroad. In each case the foreign money must be converted into lire and the greater the depreciation of Italian exchange the more lire can be secured. This is true, of course, only in so far as these payments have been and continue to be from countries whose currency is at a premium in terms of the lire. Unfortunately, calculations are impossible because of a lack of sufficient data.

The evidence thus far does not prove that Italy's trade balance is impossible of adjustment by means of invisible items. But there are several unknown factors. Italy relies on imports of foodstuffs, raw materials and coal, whose prices in the years to come are among the uncertainties.⁶ Like the other countries of Western Europe, she has developed an industrial life, and relies on importations of foodstuffs and raw materials and on exports of articles locally grown or manufactured. Restoration of trade is less vital to her than to England, but much more so than to France.

⁶ See e.g. the article in this volume, by Professor J. A. Todd, and his comments on the future of raw cotton.

Much depends then on freedom of trade and moderate prices for the articles that Italy must import. Also much depends on her total annual payments abroad not being increased by any other amounts to a sum appreciably greater than the amount we have named. But thus far Italy has not been paying interest on the government's foreign debt and if these payments are started the strain will be correspondingly increased. With the exception of small sums due to Sweden and the Netherlands, this debt amounted on June 30, 1921, to approximately \$3,434,046,000 (£ being converted to dollars at \$3.66). Interest on this at 5 per cent is \$171,702,300. Converted into lire at the level used above for the year 1921 (which was 23.4 per cent of gold parity), there is an extra annual burden of 3,804,134,000 lire to allow for. If one assumes the mint par of 19.3 cents for the lire, the burden would be 889,649,000 lire. As already pointed out, Italy's ability to meet her other obligations is not clear, although we might be inclined to give her the benefit of the doubt. This extra burden is an impossible one unless there are prospects of a great improvement in Italian economic conditions, and to this we may now turn our attention.

THE INTERNAL ECONOMIC SITUATION⁷—AGRICULTURE

In Italian agriculture 1920 was the poorest post-war year, 1921 showing a marked improvement. In the latter year a few crops were nearly back to or even above the 1913 yield, but most of them were still below. The table on page 22 shows the yields of a number of them.

⁷ At the time of this writing statistical information for 1922 is for the most part not available, and we must rely chiefly on data up to and including 1921.

YIELD OF PRINCIPAL ITALIAN FARM CROPS
(in thousands of quintals)

Farm Crops	1913	1920	1921	Per cent of 1921 to 1913
Wheat.....	58,452	38,466	52,482	89
Rye.....	1,420	1,153	1,431	100
Barley.....	2,352	1,278	2,256	95
Oats.....	6,309	3,516	5,483	86
Rice.....	5,432	4,512	4,700	86
Maize.....	27,532	22,683	24,000	87
Seed beans.....	4,509	2,595	4,000	88
Potatoes.....	17,892	14,223	15,000	83
Sugar beets.....	27,300	11,999	15,000	55
Hemp.....	900	978	1,000	111
Flax.....	26	23	25	96
Vines grapes.....	79,992	65,070	52,000	65
Vines wine *	52,240	42,294	33,000	63

* Yield in thousands of hectolitres.

In most particulars this table is very encouraging. Of the thirteen crops named, ten are well back to the 1913 standard, two of the least important, rye and hemp, being equal to or above it. Three of the most important, however, sugar beets, grapes and wines, are still far below. The sugar beet crop for 1921 was well above that of 1920, and seems to be coming up as acreage increases, but the grape and wine yield are very low in spite of the fact that the acreage reported was nearly as great in 1921 as in 1913. This poor showing was, however, probably due largely to the drought, as there was a marked decrease in 1921 from the output of 1920, which was some 80 per cent of 1913.

MINING

Italian agriculture is recovering, and encourages the conclusion that it will shortly attain the standards of pre-war days, although there seems to be nothing as yet to indicate that pre-war output will be surpassed. But in recent years industry has played an increasingly important part in

Italian economic life, and should next claim our attention. A pamphlet entitled *Features of the Italian Economic Situation* states:⁸

Not only had the quantity of Italy's exports and imports changed, but their quality had been likewise altered as a result of the progressive industrialization of the country. Raw materials and semi-manufactured goods, which in 1892 accounted for only 51.6 per cent of our imports, had risen in 1913 to 57.3 per cent of the total. Our exports of manufactured goods, which in 1892 were only 12.7 per cent of the total, had risen in 1913 to 32 per cent.

This same pamphlet furnishes statistics of the output of the Italian mines, from which the nine most important minerals have been chosen, the column of percentages having been added, as shown by the table on page 23.

It will be noticed that conditions in mining are much less satisfactory than in agriculture. In only two instances is the productivity greater

⁸ This pamphlet is published by the "Association of Italian Joint Stock Companies—General Confederation of Italian Industries," and is an interesting, valuable and very frank statement of economic conditions in Italy.

LEADING PRODUCTS OF ITALIAN MINES AND QUARRIES
(metric tons)

Mineral	1913	1920	1921	Percentage of 1921 to 1913
Iron ore.....	603,116	389,996	279,980	46
Copper.....	89,487	14,450	22,700	25
Lead.....	44,654	40,064	26,500	59
Zinc.....	158,278	95,985	60,000	43
Iron pyrites.....	317,334	321,589	448,600	141
Sulphur and crushed sulphur ore.....	406,406	296,592	313,400	77
Lignite.....	708,079	1,739,922	1,134,250	160
Asphaltic and bituminous rock.....	171,097	107,626	92,400	54
Marble.....	509,342	352,421	254,000	49

than that of 1913—iron pyrites and lignite—and both of these are considerably below recent high levels. The output of the former was 500,782 tons in 1917, and of lignite 2,171,397 tons in 1918. The lignite output was less in 1921 than in 1920.

Turning from mining to manufacturing, we find a better situation in textiles, which have suffered severely from the world-wide depression but seem to be recovering, especially silk and cotton, while the condition of woollen goods and chemicals is not unduly discouraging. Glass, pottery, paper and musical instruments are apparently facing more serious obstacles, particularly because of foreign competition, while the metal trades are still very weak.⁹

Because of its bearing on both the economic and financial situation in Italy, special reference should be made to the metal industry. This industry, it must be remembered, has been developed in spite of serious handicaps. Italy's supply of iron ore is satisfactory neither in quantity nor quality,

and she has no coal. She imported in 1919 a total of 216,700 metric tons of cast iron in pigs and 306,700 metric tons of iron and steel in semi-manufactured form. Her imports of coal the same year were 6,226,500 metric tons.

During the war the metal trades were stimulated and greatly expanded. The cessation of war orders and the general industrial depression beginning in 1920 meant a collapse, and brought with it disastrous consequences, not only to such companies as the Ilva and the Ansaldo, but to the banks with which they were closely associated.

As yet the difficulties of the great metal concerns have not been fully adjusted. Their failure would mean such widespread disaster that it may be assumed that every effort will be made by the banks and by the government to save them. There are, however, certain fundamental weaknesses that cannot be ignored in an appraisal of the situation. Italy lacks coal and does not have an adequate supply of iron ore. Her hydroelectric plants when sufficiently developed will in time offset partially the lack of coal, but the basis for industry is weak as compared with Germany, the United

⁹ See *Report on the Commercial, Industrial and Economic Situation of Italy in December, 1921*, by J. H. Henderson, Commercial Secretary to H.B.M. Embassy, Rome. Department of Overseas Trade, London, p. 27.

States and England, whose competition will always be a peril. Tariffs on manufactured steel products may save the home market, but only with a consequent burden of high prices.

Just how weak the situation still is in the metal industry is well illustrated by certain statements recently made by a director of one of the very largest of these companies. This director expressed a very high degree of optimism over the improvement in business and the outlook for the immediate future. In reply to questions he explained that orders were coming in, especially from the government, for railroad equipment. When asked how a government facing a deficit of 5,000,000,000 lire for the year (this being the amount made public at that time) could pay for large amounts of equipment, he explained that of course payment was made, not in cash, but in government bonds. When he was reminded that this did not give his company working capital, he further explained that these government bonds were discounted at the banks to get funds for further operations. How long this method of supplying business can be maintained depends on the credit of the government and the strength of the banks.

THE RAILROADS

Assistance of this sort to the metal industry and to the railroads from the government and the banks has a threefold justification, in spite of its weaknesses. One is the fact that these large concerns did furnish valuable aid during the war and there may be a certain amount of public responsibility for giving them assistance today. A second reason is the serious consequences to Italian finance and industry if they should fail. The third is the real need for reconstruction on the railroads and the indirect advantages to Italy as a whole to be gained by bringing them back to pre-war standards or even improving them.

But there is still a heavy drain on Italy in this connection. In 1913-14 the railways were being operated at a profit, though a small one, perhaps less than 1.5 per cent.¹⁰ The change since that time is shown in the comparative figures¹¹ in the table below.

A deficit must be met from some source, and this one is carried by the state. In the government budgets for 1921-22 and for 1922-23 the items of expenditure shown in the table on page 25 appear under the heading "Contributions to Public Undertakings": expenditures for other public utilities than the railroads are for convenience in-

RAILWAY RECEIPTS AND EXPENDITURES

(lire, 000,000 omitted)

Year	Receipts	Expenditures	Surplus (+) or Deficit (-)
1913-14.....	615	517	+ 98
1919-20.....	1,996	2,856	- 860
1920-21.....	3,252	4,297	-1,045

¹⁰ See Einaudi, *op. cit.*, p. 503.

¹¹ Taken from *Features of the Italian Economic Situation* already referred to.

cluded.¹² The figures are given in thousands of lire, i.e., with 000 omitted.

How justifiable these exact sums are the writer does not know, and merely records the facts with the comment that these appropriations mean a certain amount of additional strain on the treasury, and also the diversion of considerable amounts of

of the business depression. Because of her location, her long coast line, her good harbors, the necessity of importing foods and raw materials and of marketing many products abroad, she has felt the importance of a large merchant marine. On June 30, 1922 she had 2,600,000 tons, as compared with 1,428,000 gross tons in 1914,

GOVERNMENT APPROPRIATIONS FOR PUBLIC UTILITIES
(lire, 000's omitted)

Contributions to Public Undertakings:	Budget Estimates for the Financial Years Ending:	
	June 30, 1922	June 30, 1923
Postal, Telegraph and Telephone services.....	101,422	353,882
Railways for Capital Outlay.....	369,891	600,000
Construction of New Railways.....	90,000	300,150
Totals.....	561,313	1,314,032

capital and labor to railway reconstruction and improvements. Only a railway expert can pass judgment in detail.

Again attention must be called to the fact that the amounts mentioned must for some purposes be discounted, especially when one is comparing the post-war period with pre-war days. The depreciation of the lire is from its old parity of 19.3 cents to the current quotation (which at the moment of this writing is 4.20 cents). Later we shall stress the other side of this question, but in this connection it may be emphasized that the price level of Italy is high, and that a deficit of 1,000,000,000 lire or a state expenditure of a similar amount is in the immediate present only about one-fifth as heavy a burden as the same amount would have been in 1913.

ITALIAN SHIPPING

Like that of other countries, Italian shipping is suffering from the effects

¹² League of Nations, *Memorandum on Public Finance*, p. 78.

an increase of 1,172,000 tons or 82 per cent. In June last it was estimated that one-quarter of her merchant ships were idle,¹³ while unemployment in the shipbuilding industry was particularly serious.¹⁴ Government subsidies of 20,000,000 lire in 1914 have been increased and it is now proposed to pay out 325,000,000 in the period 1922-26.¹⁵ These suggest the problems

¹³ See *The New York Herald* (Paris edition), June 7, 1922.

¹⁴ An interesting difficulty is faced by some of the Italian passenger lines. In May last the writer was invited to visit a passenger vessel just being completed in one of the shipyards at Genoa. This ship had been started before Italy entered the war, construction being halted for several years and lately renewed, the intention at that time being to place it in the Italy-New York service in June. The vessel was constructed to carry 70 first class passengers and 1,300 steerage. With the recent American limitations on immigration the earning capacity of such a vessel largely disappears if, as the steamship companies contend, their profits come chiefly from the third class traffic. Several sister ships of the one visited were being completed and were to be put into service a little later.

¹⁵ *Commerce Reports*, August 14, 1922, p. 475.

that are being faced, and the additional strain placed on government finances.

UNEMPLOYMENT

A word should be said about unemployment. The industrial situation as described suggests that there must be a very considerable number of unemployed in Italy, but it is impossible to find estimates over a very long period of time. The figures below are the only ones available, and are taken from the *Federal Reserve Bulletin*, August, 1922, p. 948.¹⁶ Italians state that comparisons even during the period included are apt to be misleading, but no one denies that the amount of unemployment has been and is serious. It may be added, as pointed out in the *Federal Reserve Bulletin* from which the figures are taken, that the decline since February is hard to interpret. "It remains to be seen whether this decrease in unemployment represents an improvement in industry or a readjustment of labor, by the return to the farms of workmen drawn into industry during the period of war time inflation." A reduction, however, if a real one, does mean a lessening of distress, and it may also mean in this case a shift that in the long run is better for Italy.

Two years ago another serious factor was involved—revolutionary radicalism. Today the consensus of opinion seems to be that this need no longer be feared. Labor agitation and strikes are frequent and may be expected to continue, but there is said to be no probability of a renewal of agitation for proletarian seizure and operation of factories. There is, however, a strong socialist movement of a more conservative sort, and the struggles and frequent clashes between the Fascisti and the Socialists are an unfortunate and retarding influence in Italian economic life.

A SUMMARY OF THE ECONOMIC SITUATION

This survey is one which has so far as possible considered the economic situation in Italy as distinct from the financial, which must be examined next. But first the survey may be summarized by stating that Italy is a country of limited natural resources. Its dense population has a low standard of living, and any payments abroad, as, for example, for interest and principal of war debts, must come from an increase of productivity, rather than from an economy that would reduce Italian standards of living.

In the past there has been regularly

UNEMPLOYMENT IN ITALY AT FIRST OF EACH MONTH

1921		1922	
Month	Number	Month	Number
July.....	388,744	January.....	541,775
August.....	435,194	February.....	606,819
September.....	470,543	March.....	576,284
October.....	473,216	April.....	498,606
November.....	462,368	May.....	431,724
December.....	512,260	June.....	410,107
		July.....	372,000
		August.....	334,242

¹⁶ Figures for June, July and August are taken from *Commerce Reports*.

an excess of imports, this excess being paid for chiefly by foreign tourists traveling in Italy, and by the remittances of Italian emigrants residing in other countries. It is quite doubtful whether these sources of income will be sufficient to meet this unfavorable trade balance during the next few years, and it is certain that Italy cannot for some time, if ever, make payments on her foreign debts. This is a matter of simple economic fact, and not a question of legal or moral obligation.

Moreover, an increase in productivity can be secured only in the face of certain serious handicaps. Foreign travel in Italy may increase and be of some assistance, but for some time to come the merchant marine may be a source of expense rather than of income. The present attitude of the United States toward immigration prevents any large influx of Italians who will in any direct way pay us with their labor.

ITALIAN FINANCES

The problem is further complicated by the financial situation, which may be examined under three heads—private finance, banking and government finance.

During the war period and for about two years after prices rose in Italy as in other countries. There was a rapid and extreme rise in prices to the high point in 1920 (the index number

was 624.4, with 1913 taken as 100). In other words, prices became more than six times pre-war, whereas in the United States they reached no more than about two and one-half times pre-war, and in the United Kingdom only slightly more than three times pre-war. A second noteworthy feature is that the price level is still more than five times pre-war, the figure for June, 1922, being 537.4. This may or may not be fortunate for the people of Italy, but certain implications follow that will be pointed out later. A third feature is the sharp fall beginning in January, 1922, and continuing into April, the decline in May being rather slight. Since then the trend has been upward.

In a period of rising prices certain phenomena ordinarily appear. One of them is a period of at least apparent prosperity during which business is active and profits increase. Since prices are higher all operations call for a larger expenditure of money, and corporations adjust their capitalization accordingly. It is said that they "need more capital," and they get it by increasing their capital issues, i.e., by putting out more stocks and bonds.

The extent to which this has been done is indicated by the summary below, which gives the number of Italian joint stock companies and their issued capital on certain dates.¹⁷

An examination of these figures

GROWTH IN CAPITALIZATION OF ITALIAN CORPORATIONS

Date	Number of Companies	Issued Capital (in lire)
December 31, 1914.....	2,957	5,516,665,527
December 31, 1916.....	3,321	5,831,412,473
December 31, 1919.....	4,422	12,848,241,334
December 31, 1921.....	6,169	20,467,151,156

¹⁷ *Features of the Italian Economic Situation*, pp. 28 and 29.

shows that from 1914 to 1921 the number of corporations more than doubled, while their issued capital nearly quadrupled, the increase being 272 per cent. From 1919 to 1921 there was an increase of 39.5 per cent in the number of corporations and of 59.3 per cent in the volume of issued capital. These increases continued through January of the current year (1922), but in February a reverse movement set in. As early as in the latter half of 1921 reductions appeared in some directions, but were still offset by increases in others.

These figures do not seem very large when compared with the rise in the price level, but are significant when one remembers that prices have not yet fallen to any very great extent. These corporations have obligated themselves by bond issues to pay out very large sums in interest payments. Failure to pay these amounts when due means bankruptcy, while inability to pay a reasonable rate of

return on outstanding stock means a fall in the quoted prices of the stock and general financial embarrassment. It is probable that many of the weaker concerns would succumb if prices should decline, while even the strongest would be compelled to write off large amounts in their balance sheets, as has been done by many of the largest and strongest corporations in the United States and in Great Britain. Italian corporations have not yet gone through this period of readjustment, and if prices start downward numerous bankruptcies will probably occur. There have, of course, been some, the most spectacular being the failure of the Banca Italiana di Sconto¹⁸ and the well known difficulties of the Ilva and Ansaldo companies, but there has been no general readjustment. Yet the pressure is already being felt as is shown by the rapid growth in the number of business failures in 1921 and 1922.¹⁹

There is already to be noticed an

NUMBER OF BUSINESS FAILURES IN 1921 AND 1922

1921		1922	
Month	Number of Failures	Month	Number of Failures
January.....	73	January.....	237
February.....	77	February.....	252
March.....	103	March.....	306
April.....	110	April.....	277
May.....	107	May.....	291
June.....	153	June.....	303
July.....	175	July.....	326
August.....	197	August.....	297
September.....	173		
October.....	198		
November.....	189		
December.....	243		

¹⁸ For an account of the failure of the Banca di Sconto, see an article by Piero Sraffa in *The Economic Journal*, June, 1922, p. 178.

¹⁹ Furnished to the writer by Mr. Charles E. Lyon, Acting Chief, Western European Division, Bureau of Foreign and Domestic Commerce, Washington.

ominous increase in the number of reported failures. There is a decline in the numbers for August, the movement perhaps having been checked by the recent advance in prices.

There has been no great deflationary movement so far as commodity prices are concerned, and the decline this year in the volume of new security issues is characterized by the Federal Reserve Board²⁰ as "a drying up of capital investments rather than any deflation of commodity prices." If prices fall these corporations will experience difficulty in maintaining their obligations, even though the volume of business should remain unaltered. If, as is probable, a price decline means a smaller physical volume of business and a very acute depression, the effects will be still worse.

BANKING CONDITIONS IN ITALY

Next we may examine the conditions of Italian currency and banking.

Paper money in Italy is issued by the government and by three banks of issue—the Bank of Italy, the Bank of Naples and the Bank of Sicily. The issues on certain specified dates are shown in the table²¹ below.

This table has several features of interest. Note issues, both state and bank, increased rapidly during the war and until the end of 1920, when a maximum of 22,277,000,000 lire was reached. There then came a decline followed by another increase in December, 1921, when the total nearly reached the high level of the year before. There has this year been another decline to about the level of June, 1920. These figures cannot be fully understood without the aid of the compilation of the note issues of the banks (State notes are not included since they did not change in amount during the period²² as shown by the table on page 30.)

This table makes clear that the

NOTES IN CIRCULATION IN ITALY
(in lire, 000,000's omitted)

Dates	State Notes	Bank of Italy	Bank of Naples	Bank of Sicily	Total
Dec. 31, 1913.....	409	1,764	418	101	2,792
Dec. 31, 1914.....	657	2,162	629	145	3,593
Dec. 31, 1915.....	1,082	3,040	771	157	5,050
Dec. 31, 1916.....	1,317	3,876	946	190	6,329
Dec. 31, 1917.....	1,841	6,539	1,575	310	10,265
Dec. 31, 1918.....	2,337	9,223	2,102	425	14,087
Dec. 31, 1919.....	2,534	12,692	2,977	612	18,815
March 31, 1920.....	2,532	12,045	3,103	724	18,404
June 30, 1920.....	2,538	13,828	3,284	705	20,355
Sept. 30, 1920.....	2,545	14,903	3,287	722	21,457
Dec. 31, 1920.....	2,545	15,437	3,526	708	22,277
March 31, 1921.....	2,546	14,483	3,524	757	21,310
June 30, 1921.....	2,544	13,927	3,432	800	20,703
Sept. 30, 1921.....	2,545	14,322	3,123	711	20,701
Dec. 31, 1921.....	2,545	14,847	3,576	786	21,754
March 31, 1922.....	2,546	.....	*18,112	...	20,658
June 30, 1922.....	2,546	.....	17,664	...	20,210

*The figures for 1922 are for the three banks combined.

²⁰ *Federal Reserve Bulletin*, August, 1922, p. 947.

²¹ The figures for 1913 to 1921 are taken from the League of Nations, *Memorandum on Currency*, pp. 40 and 41, and those for 1922 from the *Federal Reserve Bulletin*, August, 1922, p. 1018.

²² Taken from *Federal Reserve Bulletin*, August, 1922, p. 1018.

NOTE ISSUES OF ITALIAN BANKS
(in lire, 000,000's omitted)

Dates	Commercial circulation	Circulation for account of the state
Dec. 31, 1920.....	8,988	10,743
June 30, 1921.....	9,437	8,722
Sept. 30, 1921.....	9,785	8,395
Dec. 31, 1921.....	10,304	8,505
March 31, 1922.....	9,589	8,523
June 30, 1922.....	9,615	8,049

decline of circulation in 1921 was due to a decrease in the "circulation for account of the state," the Italian Government first reducing its obligations to the banks by 2,000,000,000 lire, and later reducing them by nearly 700,000,000 lire more. The commercial circulation, on the other hand, is 770,000,000 lire higher than in December, 1920. Its general tendency has continued upward, with a particularly large increase in December, 1921, due to the fact that at the time of the failure of the Banca Italiana di Sconto the banks of issue assumed some of its liabilities. In so doing they temporarily increased their note issues.

There has been no reduction of the notes issued for commercial purposes, nor has there been a satisfactory reduction in the deposit liabilities of the banks. Satisfactory statistics of deposits are not available but it is clear that commercial demands have not been greatly lessened. Just as the joint stock companies have assumed heavy liabilities that may prove extremely dangerous if prices fall, so the banks are still responsible for large amounts. Prices started to fall early this year (1922), but the movement has been checked. We shall, of course, attempt no prediction as to the future, but merely point out the grave difficulty that the banks are facing in handling the problems that

already exist, and the even greater ones if prices should decline.²³

While not desiring to minimize the importance of this lessening of the liabilities of the state, it is clearly wise to examine next the conditions of the state finances. This is important in itself, and also because in a crisis states are prone to turn to the banks for relief. In this case the Italian Government would doubtless expect help, particularly from the three large banks of issue. If the reduction early in 1921 of its liability to the banks marked a real recovery, and that improvement has continued, there is every reason for satisfaction. If, on the other hand, the liabilities of the government were not reduced, but have increased, and if there is still a possibility of the state returning to the banks for assistance, our enthusiasm will be modified.

GOVERNMENT FINANCES

We need not dwell at length on the growth in the government expendi-

²³ Recent cable reports from Trade Commissioner A. A. Osborne at Rome indicate that the banking situation is still not satisfactory: "It is reported that the government has recently acted to prevent a banking crisis. One bank is said to have been in serious circumstances." This bank is the new Banca Nazionale di Credito, which was founded to take the place of the bankrupt Banca di Sconto. *Commerce Reports*, September 11, 1922, p. 701.

tures during and immediately after the war. Italy's experiences were the same as those of other belligerents—rapidly mounting expenditures, large annual deficits, enormous bond issues, huge debts, both funded and floating. For several years prior to 1914, during the period of the Lybian war and railway reconstruction, expenditures exceeded receipts as follows:²⁴

however, an industrious population and a relatively good tax system, and was carrying her burdens.

Some of the changes brought by the war are shown in the budget figures for two years in the table at the foot of this page.

There was in 1921 a slight increase in expenditures but a large increase in revenues, with a resulting decrease in

GOVERNMENT RECEIPTS AND EXPENDITURES—PRE-WAR

(in millions of lire)

	Income	Expenditure	Surplus (+) or Deficit (-)
1910-11.....	2,403.39	2,391.82	+ 11.57
1911-12.....	2,475.39	2,587.18	-111.83
1912-13.....	2,528.87	2,786.37	-257.70
1913-14.....	2,823.75	2,687.66	-163.91

There were at least three years of annually recurring deficits and a debt that in 1914 totalled 15,069,000,000 lire (of which 14,130,300,000 lire was funded and 939,600,000 unfunded),²⁵ and the cost of the public debt service in the preceding year, 1913-14, was 530,769,000 lire.²⁶ Italy thus had a heavy pre-war debt and a large debt charge on her budget. She had,

the annual deficit, which, however, was very large. It was hoped that a marked improvement would appear in the next two years, and the budget estimates as shown by the table on page 32 were presented by the Minister of the Treasury in his budget speech on December 1, 1921.²⁷

These estimates, which had been submitted to Parliament on November

GOVERNMENT RECEIPTS AND EXPENDITURES—1920 AND 1921

(in millions of lire)

	Revenue	Expenditure	Deficit
1919-20*.....	9,520	28,450	18,930
1920-21†.....	18,071	20,829	11,758

* *Proceedings of the International Financial Conference*, Brussels, 1920, Volume III, p. XI.

† From the budget speech of Signor De Nava, Minister of the Treasury, before the Chamber of Deputies on December 1, 1921, quoted by Professor Einaudi in an article "The Financial Prospects of Italy," in the fifth Reconstruction Supplement of *The Manchester Guardian Commercial*.

²⁴ Luigi Einaudi, "The Public Finances of Italy," *The Economic Journal*, December, 1915, p. 496.

²⁵ League of Nations, *Memorandum on Public Finance*, p. XVI.

²⁶ *Additional Exposé to the Financial Statement*, December 8, 1921, of His Ex. De Nava, Minister of the Treasury, Italy.

²⁷ Also from the article by Professor Einaudi in *The Manchester Guardian Commercial*.

BUDGET ESTIMATES AS PRESENTED IN DECEMBER, 1921

(in millions of lire)

	Revenue	Expenditure	Deficit
1921-22.....	16,978	21,918	4,940
1922-23.....	15,764	15,764	2,952

26, 1921, anticipated only a small decline in revenue but a very considerable reduction in expenditure. Also, they include in revenue each year 1,000,000,000 lire reparation payments from Germany and Austria. As the months have passed the official announcements were modified. In the spring of 1922 corrections were made and the prospective deficits for the two years were stated to be five billion lire and three billion lire respectively, one an increase and the other a decrease. In July, 1922, consternation was aroused by the unexpected announcement in Parliament by Signor Peano, Minister of the Treasury, that the deficit for 1921-22 was 6,500,000,000 lire (37 per cent more than the estimate of November, 1921), and that the estimated deficit for 1922-23 was 4,000,000,000, (192,000,000 lire more than the estimate of November, 1921, and 1,000,000,000 lire more than the estimates of only a short time before).²⁸ His predecessor, Signor De Nava, a few months earlier asserted that "the burden of taxation has reached the maximum which the country can bear, and that it cannot be increased without injury to the revenue itself, and without hindering the productive activity of the Italian people, from which alone public wealth can be developed." Signor Peano's proposals as stated in the despatches are not entirely clear, except that ex-

penditures must be reduced and revenues increased, with a view to providing an extra 1,350,000,000 lire. Writing in July,²⁹ Professor Luigi Einaudi estimated a possible 22,500,000,000 lire as the expenditures for 1921-22, and 20,000,000,000 or 21,000,000,000 lire for 1922-23.

There is no occasion to anticipate future developments in the budget. Although the deficit each year is decreasing, it is still large. The difficulties in increasing revenues are not hard to see if we remind ourselves of the relatively small per capita income of the Italians—\$112 in 1914. Signor De Nava, already twice quoted, estimated last spring that "the burden of taxation in Italy absorbs about one-quarter of the national income,"³⁰ and his view as to the possibility of any increase has just been given.

If taxes cannot be increased to any important extent, cannot expenditures be reduced? Needless to say, only an expert on Italian fiscal affairs can speak with authority, but an outsider may make a few observations.

Some expenditures have been re-

²⁸ *Op. cit.*

²⁹ In the article by Walter B. Kahn in *The Review of Economic Statistics* for April, 1921, already cited, it is estimated that the Italian national income averaged 20 billion lire before the war, of which 4 billion or 20 per cent was taken by the central government, provinces and communes. In 1920 the national income was estimated at 75 billions, "of which the national government absorbs by taxation, borrowing and currency issues 26 billions, and minor entities, 4."

³⁰ *The Chicago Tribune* (Paris edition), July 15, 1922, and *The Daily Telegraph* (London), July 14, 1922.

duced. The bread subsidy amounting to 6 billion lire in 1920 was only 1,000,000,000 in the estimates for 1921-22, and disappeared entirely in those for 1922-23. Military expenditures have declined as follows:³¹

1917-18—	19.4	billion lire
1918-19—	20.6	" "
1919-20—	14.1	" "

Whether the following figures taken from the League of Nations, *Memo-randum on Public Finance* (pp. 78-9) are closely comparable to the preceding ones the writer is not sure. They appear under the heading of "Defense":

1921-22—	3,093,175,000	lire
1922-23—	2,490,051,000	lire

Estimates given elsewhere differ somewhat, but agree sufficiently to warrant the conclusion that the Italians are correct in their claim that they have greatly reduced military expenditures.

Every government has faced both economic and political difficulties in reducing its budgets since the close of the war, and the Italian is no exception. The lack of stability has been shown by numerous changes of ministries. Also, it had to face serious internal difficulties with the radicals two years ago, and still has an acute problem with the Socialists and the Fascisti. The railways are calling for large expenditures for operation, reconstruction and new construction, while considerable amounts are being appropriated to meet deficits in the postal, telegraph and telephone service.

But strong emphasis must be placed on two items that cannot be reduced. One is civil and military pensions whose amount was 1,726,548,000 lire (9.5 per cent of the total) in last November's estimates for 1922-23.

This can be reduced, but not arbitrarily, and only gradually. The other is Interest on Public Debt, which was estimated at 5,198,750,000 lire, or 28.7 per cent of the total for 1922-23. This item can be reduced only by refunding operations at lower interest rates, but since the total volume of debt is increasing yearly because of the budget deficits, there is every reason to expect an increase rather than the reverse.

In other words, a total of nearly 7 billion lire, or 38.2 per cent of the estimates for 1922-23, are capable of very little reduction, but may actually increase. The government, like the private corporations and banks, has accumulated obligations (pensions and debt charges) in a period of lavish expenditures and high prices. The burden now is enormous. Signor De Nava, whose "Additional Exposé, etc." has already been twice quoted, pointed out:

In 1913-14 the expenditure under this head (cost of the service of the public debt) amounted to 530,769,000 lire . . . while for the current year the financial outlay is estimated at 5,198,749,000. Thus in eight years the cost of the service of the public debt has grown tenfold, amounting to almost double the total national expenditure in 1913-14, which amounted to lire 2,687,661,000. If the amount mentioned above were to be increased by the service in gold of the foreign debts incurred since 1914, the huge size of this debt and the high exchange rates would add such a burden to the taxpayer that the national economy and finance of the country would be most seriously affected.

Professor Einaudi, although writing optimistically in the article in the supplement of *The Manchester Guardian Commercial* repeatedly referred to, sums up the question of reducing expenditures by pointing out that of 18

³¹ Walter B. Kahn, *op. cit.*

billion lire at least six come under the heading of public debt, and are therefore unalterable. Six "represent salaries and payments to public servants which in practice no government has the political strength to reduce. The remaining six are partly expenses fixed by contract. The margin of possible reduction is very small." Professor Einaudi hopes that by avoiding new expenditures, by moderating the rates of taxation, and by more evenly distributing its burden, the budget can soon be balanced. This conclusion is further predicated on two other considerations. One is his insistence that Italy be relieved of her foreign debts through a general cancellation of the inter-allied obligations, and the other is that no attempt be made to restore the paper lire to its old parity. Even so, his view is an exceedingly optimistic one.

In spite of this optimism our survey makes it hard to escape certain conclusions regarding the fiscal situation of the Italian Government. In spite of considerable reductions in some lines, the total annual expenditures are still large, and some cannot well be reduced, particularly pensions and debt charges which are over one-third of the total. Taxes cannot be in-

creased greatly. Even with the present depreciation of the lire and the high price level, the government is still incurring deficits. If prices should fall, tax yields will be less, (even though there should be no decline in productivity) and this would make possible a reduction in only a part of the government's expenditures. If a fall in prices should be accompanied, as it probably would, by an increased business depression, the problem would be still worse.

When we began our analysis of government finances we proposed to examine its possible relation to the condition of the banks. A government deficit covered by borrowings may be taken care of either by long term bonds (funded debt) or short time obligations, many of which are known as Treasury Bills and ordinarily mature within a year from the date of issue. These short time obligations are known as an "unfunded" or "floating" debt. The debt of Italy is of two main groups—domestic and foreign, the latter being chiefly obligations to England and the United States incurred during the war. There are also small amounts due to Brazil, Canada, Sweden and the Netherlands.

The following table gives this debt for certain indicated dates:

ITALIAN PUBLIC DEBT
(in millions of lire)

Dates	Domestic			Foreign	Total
	Funded		Unfunded		
June 30, 1914.....	14,130.3	.....	939.6	None	15,069.9
Dec. 31, 1919.....	.....	63,928.0	.....	20,202.0	84,130.0
June 30, 1920.....	43,434.4	.....	30,229.2	20,265.0	93,928.6
Oct. 31, 1920.....	48,889.0	.....	29,368.0	20,594.0	98,851.0
Oct. 31, 1921.....	49,350.0	.....	40,440.0	20,964.0	110,754.0
Dec. 31, 1921.....	.....	.....	.....	.....	111,900.0

These figures, like many others that we must use, come from a variety of sources. There is not always complete agreement, and it is not possible to have the information as complete or as recent as we would like. But several features are very prominent. One is that the foreign debt has remained almost unchanged since December, 1919, while the domestic debt has constantly mounted. This increase is in both the funded and the unfunded debt, the latter growing more rapidly and now being over 80 per cent as large as the former.

Another feature is that from October, 1920, to October, 1921, the increase in the domestic debt was not only large—11,533,000,000 lire—but was chiefly in the floating debt, which is Treasury Bills. Now these Treasury Bills run for a period of from three months to a year. They have their advantages, but may be a danger. The Italian Government in December, 1920, reduced its debt to the note issuing banks by about 2 billion lire, as we have noticed. But in the succeeding year it added nearly five times that amount to its floating debt. If at any time the public loses confidence in these outstanding bills, the government, as they fall due, must either default or turn to the banks. Usually the latter course is first employed, even though default may come later.

One other comment on the debt should be made. The foreign debt is throughout converted into lire at the old par of 25.12 lire to the pound sterling and 5.18 to the dollar. Thus converted the amount is of course minimized. If the lire were back at its former level, prices would probably be much lower than at present, and the government would find it entirely impossible to meet its obligations. If, however, we think of maintaining the lire at approximately the present

level, then the foreign debt should be converted at the current rate of exchange. On September 1, 1922 this is about 57 to the pound sterling and 22.72 to the dollar. Converting at these rates, the foreign debt as stated for October 31, 1921, was about 65,000,000,000 lire instead of 20,000,000,000, and consequently the total was about 154,790,000,000 lire.

CONCLUSIONS

The Italian Government has an extremely difficult problem. It is not in a position as yet to balance its budget, and may not be able to do so for several years, even though no attempt is made to meet its foreign debt. Even this can be accomplished only in case prices are kept high or, in other words, so long as the present low level of the lire is maintained. The people of Italy must pay each year about 20 billion lire in taxes. They can do that only so long as lire are cheap and easily acquired. Raise the value of the lire, lower prices, make each piece of money more valuable and hence harder to get, and the task of the government becomes impossible.

There are two schools of thought on this question in Italy and elsewhere in Europe. One favors "deflation," restoring the money to its old parity. The other urges "devaluation," contending that it is impossible, or at least inadvisable, to deflate, and much better to hold the money at some agreed low level of value.³² Which plan will ultimately be adopted it would be useless to predict. All that can be said with certainty is that deflation

³² For a presentation of the former view see Yves Guyot et Arthur Raffalovich, *Inflation et Déflation* (Paris, 1921). For the latter view see J. M. Keynes, in the "Reconstruction in Europe," Supplement of *The Manchester Guardian Commercial*, April 20, 1922, p. 3.

will make it impossible for corporations, banks and government to meet their obligations. Yet few Italians are as yet ready to consider devaluation. There is pride in their money and a strong feeling that devaluation would mean a loss of prestige and a humiliation. As yet a proposal to devalue would probably not find adequate support.

Finances in Italy are clearly in a very bad condition, and the judgment of the outside world is reflected in the quotations for the lire as shown in the chart on p. 15. In spite of occasional rallies its value does not rise very high, and from the middle of the summer until the present there has been a decline.

But let us admit that the finances furnish one obstacle to rapid recovery. Suppose that in some manner this difficulty were solved. What of Italy's relations to the United States? In 1914 she took \$74,200,000 of our exports and furnished us with \$56,400,000 of our imports. In 1921 the amounts were \$215,500,000 and \$62,300,000 respectively. What is true of her relations to us is true to a somewhat less degree of her relations to the world as a whole. She imports more than she exports, meeting the difference with certain invisible items. Paying foreign debts means a complete change, a great increase in exports.

Our analysis earlier in this chapter makes it entirely clear that any such increase can come only very slowly, and probably cannot come at all. An

unfavorable trade balance cannot be quickly changed into a favorable one, even under the best conditions. Such a change means a complete readjustment of the entire economic organization of the country. Suffering with the rest of the world from a serious trade depression, this is impossible, even though her financial difficulties were not the insuperable handicap that they are. Only one of the numerous complications is the fact that much of Italy's prosperity in the past has been due to her commercial relations with Germany. With Germany's condition what it is today, Italy's recovery will be greatly retarded.

One other consideration must be mentioned. In recent years Italy has attempted extensive industrialization, and has done it without a suitable basis on which to build. This means heavy production costs in such basic industries as iron and steel. The cost of imported coal is high, and it is estimated that the cost of pig iron per ton in 1913 was 33 per cent greater in Italy than in England,²³ while it is often argued that England is now at a disadvantage as compared with Germany and the United States. Under such circumstances, Italy's industry can succeed only with the aid of heavy tariffs or subventions. In any case there is no escaping the burden in supporting an industry for which the country's natural resources do not fit her.

²³ Walter B. Kahn, *op. cit.*

Chapter IV

FRANCE

Turning to France we find a different problem. In order to understand it we must first notice some of the features of the country and of its economic life prior to the war. With an area of 207,100 square miles and a population of 39,602,000 (in 1911) the density per square mile was 191 which may be compared with 313 given for Italy.

Certain facts about this population must be emphasized. More than one-half of it was rural, France being the most predominantly agricultural of all the great nations. In 1915 there were 7,520,922 owners of 13,444,226 landed properties. This did not mean that the land belonged largely to those who worked it, for many workers were wage-earners and many others either paid fixed rents or held as metayers.¹ It has also been estimated that there were "more than eight million owners of lands and houses in France" and that "personal estate is no less divided."²

Nevertheless the people of France are on the whole property owners, and along with their ownership has developed an attitude of mind that very definitely affects the French reaction toward such questions as Bolshevism and repudiation of debts. A man who owns property, even though its amount be small, does not readily become a convert to any proposal to transfer the ownership or management of that property or even other property to the community. In a country where many people have become the owners

of securities any suggestion of repudiation, as, e.g., by Russia, is found to arouse bitter criticism.

Another characteristic of pre-war France was that it was relatively self-sufficing. With so large a fraction of its population on the farms, only a small part of its food supply was imported. One of the best authorities on the subject, Sir R. Henry Rew,³ estimates that the home production of the United Kingdom supplies (exclusive of sugar and beverages such as tea, coffee and cocoa) only a little more than half the total food requirements. He also estimates⁴ that if France and Germany should reduce their per capita food consumption to the per capita consumption in the United Kingdom they would be entirely self-supporting.

Finally it may be observed that this French population had a small per capita income. Its amount was \$185 per annum, a little higher than the Italian, which was \$112.⁵

France, before the war had an import balance of trade, as did Italy and the other countries we shall examine. For the period 1907-13 the annual average of imports was 7,143,000,000 francs and of exports 6,038,000,000 francs, an import excess of 1,104,000,000 francs.⁶ The nature of this trade is shown in the analysis for the same seven-year period⁷ in the table on page 38.

³ *Food Supplies in Peace and War*, p. 25.

⁴ *Ibid.*, p. 121.

⁵ *The Income in the United States*, The National Bureau of Economic Research, p. 85. These figures are adapted from an article by Sir Josiah Stamp in the *Journal of the Royal Statistical Society*, July, 1919.

⁶ Edmond Théry, *Conséquences Economiques de la Guerre pour la France* (Paris 1922), p. 150.

⁷ *Ibid.*, p. 154 and 155.

¹ "French Agriculture Since the War" by Compere Morel. *Manchester Guardian Commercial*, "Reconstruction in Europe," Number Six, August 17, 1922, p. 358.

² Yves Guyot: "The Amount, Production and Nature of French Investments." *The Annals*, November, 1916, p. 36.

FRENCH FOREIGN TRADE—TOTAL FOR 1907-13

(in millions of francs)

	Imports	Exports	Deficit (-) or Surplus (+)
Foodstuffs.	9,979	5,602	- 4,377
Raw materials.	30,346	12,107	- 18,239
Manufactured articles.	9,675	24,561	+ 14,886
Total for the period. .	50,000	42,270	- 7,730
Annual average.	7,143	6,038	- 1,104

The yearly average for the above seven years is as shown in the table below.

France had a pre-war population only about 14 per cent greater than that of Italy. Her foreign trade was about twice as large, yet her annual unfavorable balance for the seven-year period 1907-13 was only 1,104,000,000 francs, that for 1913 being 1,541,124,000 francs. Italy's unfavorable balance for the last of those years, 1913, was 1,133,988,000 lire, a much larger percentage of total trade. (The franc and the lire had approximately the same pre-war value, i.e., 19.3 cents.) Speaking in relative terms her unfavorable balance, although about the same in absolute amount as that of Italy, was a smaller fraction of her total trade. Hence it was of relatively less importance, a fact that sheds some light on French policies.

France's adverse trade balance of 1,104,000,000 was more than covered by various invisible items. Her total foreign investments were from forty to forty-two billion francs with an annual interest return of perhaps two billion francs and foreign tourists spent perhaps one billion francs per annum in the country. There were also considerable sums earned by her merchant marine in the foreign carrying trade.

It is important to notice that many of her foreign investments were in Russia and the near East. Unfortunately estimates of their amount vary so widely that few conclusions may be drawn. Yves Guyot⁸ places the French holdings of Russian securities at thirty billion francs, which is about three-quarters of the French foreign investments, but other estimates have been much lower. They were, however, an important fraction of French foreign

FRENCH FOREIGN TRADE—AVERAGE FOR 1907-13

(in millions of francs)

	Imports	Exports	Deficit (-) or Surplus (+)
Foodstuffs.	1,425	800	- 625
Raw materials.	4,335	1,729	- 2,605
Manufactured articles.	1,382	3,508	+ 2,126
Total.	7,143	6,038	- 1,104

⁸ *Op. cit.*, p. 51.

holdings and the cessation of return on investments in Russia and the near East has had a very important effect on France's international economic position.

The essential features of France's pre-war economic organization may be summarized by saying that she had a fairly dense population more than one-half of which was agricultural. She could and did raise most of her own food supply and her import trade balance was relatively small. Her investments abroad, while not so large as those of the British, were considerable and were growing year by year.

The debt of the French Government on December 31, 1913 was 33,537,000,000 francs which was 846.9 francs or \$163.45 per capita, the debt being a domestic one. This government debt was the largest in Europe with the exception of that of Luxemburg, which was 965.4 francs or \$186.32 per capita.⁹

EFFECTS OF THE WAR ON FRANCE

It is our purpose in this study to call attention only to those changes wrought by the war that have a relation to the problems of the United States today. Hence many matters will be omitted that might otherwise be important. We are primarily con-

cerned here only with those changes that affect the ability of France to adjust herself to her new economic relationship to the rest of the world and particularly to the United States.

Estimates of the loss to France during the war because of the invasion and occupation of ten of the most important departments, vary widely. For our purposes a careful comparison of these is not important and we may quote that by Edmond Théry¹⁰ who declares that the occupation in effect deprived France of 20 per cent of her wheat, 27 per cent of her oats, 76 per cent of her sugar beets, 48 per cent of her coal, 81 per cent of her iron ore, 64 per cent of her iron, 58 per cent of her steel, 55 per cent of her glass works, 50 per cent of her textile products, etc. Let us examine first the French output of a few products with the purpose of forming some opinion regarding her recovery and her present economic capacity as compared with pre-war.

France's post-war output as compared with pre-war may first be noticed. The annual production of several crops may be given first (in thousands of metric tons). Alsace-Lorraine is excluded throughout.

An analysis of the production of coal and iron is difficult because the acquisition of Alsace-Lorraine and the Saar

FRENCH AGRICULTURAL PRODUCTION

Year	Wheat	Rye	Barley	Oats	Potatoes	Sugar Beets
1904-15.....	8,797	1,287	986	4,900	13,392	5,735
1919.....	4,965	730	500	2,494	7,731	1,248
1920.....	6,271	849	771	4,223	10,316	2,056
1921.....	8,930	1,130	823	3,559	8,224	1,962
Per cent 1921 to 1904-15..	102	87	83	72	61	34

⁹ League of Nations, *Memorandum on Public Finance*, p. XVIII.

¹⁰ *Op. cit.*, p. 8. These estimates are more conservative than those of M. Cheysson of the French delegation at the International Financial Conference at Brussels, 1920. See *Proceedings of the Conference*, Vol. III, p. 19.

have transferred to France the coal and iron of those regions. While the output from these territories may be segregated it is hard to know how to interpret the result. The monthly average production of coal (in thousands of metric tons) has been:¹¹

FRENCH COAL OUTPUT
(in thousands of metric tons)

Year	Month	Coal Production
1913.....	.....	3,404
1919.....	.....	1,822
1920.....	.....	2,890
1921.....	.....	3,213
1922.....	January	3,533
	February	3,390
	March	3,807
	April	3,278
	May	3,442

The figures for 1913 include only the output of French territory as of that date. In 1919 the production of Alsace-Lorraine is included and in the last three years that of the Saar as well. Including these newly acquired areas the average monthly production in 1922 has been above the 1913 level.

Whether it should be included in a determination of French prosperity today as compared with that of 1913 is a debatable point.

The same difficulties appear with pig iron and crude steel, the figures for which (monthly averages and in thousands of metric tons) are¹² as shown in the table below.

After 1919 there is included the product of Alsace-Lorraine which produced a monthly average of 93 thousand tons of pig iron and 72 thousand tons of crude steel. The total for pig iron in May, 1922, is greater than pre-war and for crude steel nearly 92 per cent of pre-war. Without Alsace-Lorraine the percentages are respectively 80 and 74 of pre-war.

France in her internal productivity is thus making rapid recovery to her pre-war status. The year 1919 was a low point and led to many pessimistic forecasts of the future.¹³ Since then her progress has been steady and has carried her a long distance back to the pre-war level. Agriculture is nearly what it was before the war, the only important exceptions being potatoes and sugar beets. Coal, iron and steel

FRENCH OUTPUT OF IRON AND STEEL

Year	Month	Pig Iron	Crude Steel
1913.....	.....	434	396
1919.....	.....	201	182
1920.....	.....	276	246
1921.....	.....	280	255
1922.....	January	312	315
	February	323	317
	March	385	367
	April	383	324
	May	442	364
	June	416	358

¹¹ League of Nations, *Monthly Bulletin of Statistics*, July, 1922, p. 7.

¹² League of Nations, *Monthly Bulletin of Statistics*, July, 1922, p. 8.

¹³ See, e.g., Gaston Jéze, "The Economic and Financial Position of France in 1920," *Quarterly Journal of Economics*, February, 1921, and Edmond Théry, *Conséquences Economiques de la Guerre pour la France*.

are also returning rapidly, particularly if there is included the output from the new territory acquired at the end of the war.

In other particulars also progress is being made. France's merchant fleet including only sea-going steel and iron steamers and motor vessels was 3,303,000 gross tons in June, 1922, a gain of 1,385,000 tons since 1914.¹⁴ Reconstruction work in the invaded regions has made great advances.

In January, 1919, the Ministry of the Liberated Regions provisionally estimated the damages in the war zone at 62,034,269,456 francs. War claims filed, as of December 31, 1921, totaled 150,530,227,187 francs of which 28,775,455,534 francs had been paid, leaving 121,754,771,653 francs to be adjusted.

The war damages claimed by France from Germany totaled 218,531,336,276 francs, including property losses on land, at maritime ports and in the colonies; personal injuries to *sinistrés*; civil and military pensions and separation allowances; accrued interest and all other charges. Total expenditures for reconstruction to December 31, 1921, including pensions and indemnities to the *sinistrés*, was approximately 72,000,000,000 francs.

In an interview appearing in the Paris edition of the *New York Herald* on July 10, 1922, M. Charles Reibel, Minister of the Liberated Regions, stated that, although 2,615,136 people left this area, the numbers there were now only 681,158 less than when war was declared. Of the 3,337,000 hectares of land devastated by the war 3,149,348 had been cleared. Of 696,035 human habitations, 207,179 are completely restored, 181,422 patched up, 86,093 temporary edifices of wood have

been erected and 24,264 hutments. Of 56,130 kilometers of roads destroyed 28,666 have been restored and 23,437 improved, while of 4,686 bridges and viaducts destroyed, 3,688 have been repaired. All main-line railways have been restored and, of 2,245 kilometers of destroyed local lines, 2,225 have been repaired. Also more than half of the wrecked private industrial enterprises are working again. By December 31, 1921, the amount disbursed on account of victims was 43,168,000,000 francs and by April 30, 1922, the expenditure for restoration work was 34,536,393,824 francs.

To give so encouraging an account of conditions in France of today is not to minimize the sufferings of the people nor their industry, nor the amount of rebuilding yet to be done. Rather it is a tribute to the energy and the courage with which the French have faced their task and have done so much to improve their situation. It is also a recognition of the quickness with which the ravages of war can be overcome. This is particularly true of agriculture. In a remarkably short space of time nature can do much, even if unaided, and with the patient industry of the French peasant progress has been rapid. Also the recovery in mining and manufacturing, though slower, is by no means so difficult as the enormous figures of war losses might suggest. On the other hand the statistics given should not be interpreted to mean that there is even yet complete recovery. Perhaps 50 per cent of the reconstruction work in the devastated areas still remains to be done.

UNEMPLOYMENT

With the degree of recovery shown by the facts just given one could not expect to find any large amount of unemployment. With so much work to be done and with so much evidence of

¹⁴ Lloyd's *Register of Shipping*, 1922-23 edition, as quoted in *Commerce Reports*, August 14, 1922, p. 475.

what has been accomplished there has presumably been little unemployment.

Unfortunately satisfactory statistics do not exist. Available figures include only individuals aided by certain government funds which exist in only thirty-one departments (out of the ninety in France) and in 233 municipalities or 264 in all. Of this number in existence only 73 are actually functioning, so the figures are of value, not as reflecting the total unemployment in the country, but the changes from month to month.

In December, 1920, 39,522 persons were receiving allowances. Then France along with the rest of the world began to feel the effects of the business crisis and the following results appear for selected months:¹⁵

ing heavy balance against her being the reason for her large borrowings abroad, especially in England and the United States. Before giving any figures of her imports and exports emphasis must be placed on the impossibility of drawing satisfactory conclusions from them as they stand. Compilation of foreign trade statistics is apparently easy but in practice very difficult for any country, particularly at present. Methods of valuation of commodities that were fairly satisfactory before the war are in some cases almost useless under the chaotic conditions now prevailing.

French figures have their own peculiarities. Imports are now reported on declared values. There is the probability that these declared values are

FRENCH UNEMPLOYED RECEIVING GOVERNMENT AID

1921		1922	
Month	Number Receiving Aid	Month	Number Receiving Aid
January.....	63,962	January.....	9,640
March.....	91,225	March.....	7,915
June.....	47,331	June.....	4,534
September.....	21,797		
December.....	10,032		

Business is active in France, there is comparatively little unemployment and a part of what exists is due to maladjustment rather than absolute lack of work. Thus, on June 30, 1922, there were 10,139 wage-earners out of work in Paris, but 10,085 vacant positions were seeking workers.¹⁶

THE FRENCH TRADE BALANCE

France, like the other belligerent countries, imported much more than she exported during the war, the result-

fairly low because of the desire of the importer to evade duties. Import statistics are, if anything, probably too low. Exports on the other hand cannot have values attached to them in the same way and it is the practice to use a scale of values established from time to time. This method results in the values always being those of a date somewhat earlier than the one at which the goods in question leave the country. In a period of fairly stable prices this means that the chief element of uncertainty is the possibility that the government officials will not be fully informed on actual values. In a pe-

¹⁵ Information regarding unemployment is from the *Federal Reserve Bulletin*, August, 1922, p. 942.

¹⁶ *Ibid.*, p. 243.

riod of rapidly rising prices it means that the recorded values of exports will always be lower than the actual values since the values applied are always those of a somewhat earlier date than the exports themselves. The reverse will be true in a period of falling prices. Thus French exports

as these figures suggest there is certainly a very pronounced recovery. Continuation of this is evidenced by the statistics for 1922 in so far as they are available¹⁸ as shown in the table at the foot of this page.

Through 1921 the statistics indicate an import balance was maintained,

FOREIGN TRADE OF FRANCE—1913 AND 1919-21
(in francs—000's omitted)

Year	Imports	Exports	Import Balance
1913.....	8,421,336	6,880,212	1,541,124
1919.....	35,799,264	11,879,592	23,919,672
1920.....	49,904,976	26,894,988	23,009,988
1921.....	23,548,476	21,553,104	1,995,372

were probably minimized through 1920 and have been exaggerated since. In the figures¹⁷ as shown in the table above both the imports and the exports for 1920 have been adjusted to the 1920 official rates but those for 1921 are still valued at 1919 rates. The impossibility of drawing accurate conclusions is clear.

While the reduction of the import balance in 1921 is by no means so great

although it was a greatly reduced one. In the first seven months of 1922 for which information is available there was an export balance for five months. It must be repeated that the method of preparing these statistics tends to exaggerate the exports and perhaps to minimize the imports. Probably France does not yet have a favorable trade balance.¹⁹ Confirmation of this is to be found in the calculations re-

FRENCH FOREIGN TRADE IN 1922
(in francs—000's omitted)

Month	Imports	Exports	Balance of Exports (+) or of Imports (-)
1922			
January.....	1,487,652	1,638,741	+151,089
February.....	1,847,026	1,853,312	+ 6,286
March.....	1,931,963	1,876,668	- 55,297
April.....	1,743,640	1,962,997	+219,357
May.....	1,810,125	1,866,964	+ 56,836
June.....	1,837,184	.....	.....
July.....	1,996,000	1,433,000	+563,000

¹⁷ Taken from League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 10.

¹⁸ *Federal Reserve Bulletin*, September, 1922, p. 1102. Exports are on 1919 value units except for July, which are on 1921 value units.

¹⁹ "It is doubtful if the actual trade balance stands in favor of France." *Federal Reserve Bulletin*, July, 1922, p. 809.

cently published for the first six months of 1922. In this estimate import figures are based on values declared by importers for the payment of the business turnover tax, while exports for the first five months are on the basis of 1919 values as above and for June on 1921 values. Such comparisons are for most purposes of little value but may be included here as they tend to confirm our conviction that the French trade balance while improving is not yet favorable.

FRENCH IMPORTS AND EXPORTS FOR THE FIRST SIX MONTHS OF 1922

(in francs—000's omitted)

Imports	Exports	Import Balance
10,671,592	9,368,660	1,302,932

If one is endeavoring to determine whether France is increasing in her ability to meet her foreign obligations, foreign trade should ordinarily be expressed in money values for that is the form in which her obligations appear. It is helpful, however, to note tonnages for they reflect the change in productivity without the complications of a fluctuating price level. It must be remembered that a change in the character of trade, as for example an increase in the volume of imported heavy raw materials, such as coal, makes tonnage comparisons over a period of time very difficult unless one is in complete possession of details. Tonnage (thousands of metric tons) for a number of years is given in monthly averages²⁰ in the table in the opposite column.

This analysis of France's foreign trade warrants the conclusion that she

²⁰ League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 13. For 1922, *Federal Reserve Bulletin*, September, 1922, p. 1102.

FRENCH FOREIGN TRADE
(in metric tons—000's omitted)

Year	Imports	Exports
1913.....	3,685	1,840
1919.....	3,204	464
1920.....	4,245	1,039
1921.....	3,164	1,333
1922 (seven months average).....	4,095	1,673
1922 (as percentage of 1913).....	111	91

is making excellent progress. Her tonnage of imports is high, being 11 per cent above the amount in 1913 and a considerable increase over 1921 although under 1920. In values France appears to be rapidly gaining ground although she does not yet have an export balance.

Finally, reference should be made to the invisible items. They cannot be estimated with any accuracy. Income from foreign securities is much below pre-war because so many of those held by France are in default, but tourists' expenditures are said to be large. Whether the invisible items combined are sufficient to make the total foreign-trade balance favorable for France is impossible to say but it is probable that they do.

Also attention should be called to the inclusion of reparations in kind in the imports. During the first four months of 1922 these imports of coal, the only article of importance, were valued at 80,000,000 gold marks, or 225,000,000 francs at the current rate of exchange.²¹

FINANCIAL CONDITIONS IN FRANCE

With comparatively little unemployment, with a growth in productivity and with a greatly improved trade balance, what may be said of France's

²¹ *Federal Reserve Bulletin*, July, 1922, p. 810.

general position? Are the frequent references to her distress warranted? The answer is two-fold. Although rapidly improving in the particulars mentioned, she is still in many lines considerably below pre-war levels, and still farther below what she would have been had no war occurred. Also her most serious problems are financial, a field yet to be surveyed.

PRIVATE FINANCE

Figures covering the total capitalization of French corporations do not exist. One might suppose that an idea of the probable situation could be formed by noticing the annual volume of security issues, but the various compilations differ somewhat widely and are hard to reconcile. Those shown in the table below are, however, worth examining.²²

About these figures several observations may be made. Whereas in 1914 over 57 per cent of the total issues were

of foreign securities, in recent years nearly all of the issues are domestic. France loaned large sums abroad each year before the war. She was an investing country—a creditor. During and since the war and probably for some years to come the situation has been changed. She is not in a position to lend abroad and may desire to continue borrowing as she has actually been doing from time to time.

A second feature of this table is the large amount of French governmental issues as contrasted with the others. In 1914, which included several war months, they were only 23 per cent of the total, in 1918 they were nearly 93 per cent and in 1921 government loans (with perhaps a few foreign issues included) were still 75 per cent of the total. This was due largely, though not entirely, to the predominance of war needs through 1918 and to reconstruction needs since that time.

Next is the enormous growth in the

SECURITY ISSUES ON THE FRENCH MARKET 1914-APRIL, 1922

(in francs—000's omitted)

Year	Total	French			Foreign	
		Government, Department and City Loans	Other Bonds	Stocks	Bonds	Stocks
1914.....	3,401	805	491	192	1,781	222
1915.....	13,654	13,308	278	15	50	3
1916.....	10,713	10,082	470	90	....	70
1917.....	13,507	10,803	2,091	382	15	217
1918.....	23,491	21,744	1,129	583	....	35
1919.....	12,276	2,250	8,448	1,461	64	53
1920.....	55,849	42,640	8,032	5,051	6	120
1921.....	38,972	29,340	7,273	2,359	....	...
1922 (6 months only)	15,320	.....	....	....	....	...

²² For the years 1914-20 these figures are taken from the compilations by Joseph S. Davis in an article "Recent Economic and Financial Progress in France," *The Review of Economic Statistics*, July, 1921. For 1921 they are from the *Federal Reserve Bulletin*, March, 1922, p. 306 and for the first six months of 1922 from the League of Nations, *Monthly Bulletin of Statistics*, July, 1922, p. 28. It will be noticed that the foreign securities are not separately given for 1921, probably being included among the others while only the grand total is given for the four months of 1922.

total of the annual issues, the totals for 1920 being sixteen times and those for 1921 eleven times the ones for 1914. For this there are two explanations. One is that there has been a very large amount of saving. The ability of the people of any country to add to their supplies of capital by industry and economy is enormous. In France, especially, this is true, since so large a fraction of the population works hard and lives frugally.²³

It is hard, however, to disentangle the amount of actual saving from the effects of the monetary inflation. In April, 1920, French wholesale prices were nearly six times as high as in 1913, and in May, 1922, they were still over three times as high. We have noted that in Italy there was a very large increase in capitalization to keep up with the rise in prices and we have commented upon the dangers in case prices should now fall. The differences between the two countries are that (1) prices rose higher above the pre-war level in Italy than in France; (2) although there has been a decline of prices in Italy, this decline is as yet relatively less than the decline in France; (3) business in France is today on the whole in a much better condition than in Italy; and (4) Italy's economic life has a less certain foundation than that of France, because of the former's meager natural resources.

It would be a mistake to be confi-

²³ Even more could be produced in France if more modern methods were introduced. This is illustrated by the difference between the agricultural yield in France and that in other European countries. Compere Morel, in an article "French Agriculture Since the War," *Manchester Guardian Commercial*, "Reconstruction in Europe," Supplement, Section Six, August 17, 1922, states that her grain crops average 12.5 quintals to the hectare, Germany's 21.6, Denmark's 22.9 and Belgium's 25.2 . . . in the case of potatoes, France 80.6 quintals to the hectare, Hungary 272, Denmark 296, Holland 307, Germany 307.4 and Belgium 514.1."

dent, however, that private financing in France is on an entirely sound basis. We have no index of French business failures similar to those of many other countries, but the opinion of numerous qualified observers seems to be that France has not yet gone through the post-war liquidation that the United States has experienced. In a period of rising prices incompetent management is not quickly eliminated, and bankruptcies are few. When prices are stabilized or fall rapidly, these weak concerns quickly suffer (and unfortunately many others whose management may have been of the best).

On this point little more than a *priori* reasoning is possible. All that can be said with confidence is that the large volume of security issues as given above indicates that there must have been a considerable amount of real saving,²⁴ a view that is re-enforced by the growth in the tonnage of French exports and by the reports on reconstruction progress. Since France has gone through a period of inflation from which she is not yet free, it seems probable that many business failures are overdue. And finally, since prices are still over three times the level of 1913, any attempt to raise quickly the value of the franc, which would mean to lower prices, will, as in Italy, make it impossible for many French corpora-

²⁴ A calculation of security issues in France appearing in the *Federal Reserve Bulletin* for July, 1922, p. 808, is as follows:

	francs
1919.	27,000,000,000
1920.	47,000,000,000
1921.	39,000,000,000
Total.	113,000,000,000

The writer in the Bulletin points out that from these figures it would appear that in the last three years there has been a saving of about 2,831 francs per capita, or nearly as much as the average annual per capita income. Allowances for inflation, etc., would very much reduce this estimate.

tions, firms and individuals, to meet the large liabilities they have assumed.

BANKING IN FRANCE

Banking may be discussed under two headings: (1) the condition of the Bank of France and (2) that of the commercial banks. The latter group may be described first.

The consolidated balance sheet on page 48 shows the condition of seven of the commercial banks on December 31, 1920 and 1921.²⁵

This statement is not reassuring. Of the assets, which total 21,486,000,000 francs and 20,948,100,000 francs respectively for the two years, a very considerable percentage are classified as liquid—19,242,900,000 francs in 1920 and 18,802,000,000 francs in 1921. How many are really liquid cannot be determined from the facts given. One of the doubtful items is the "Bons de la Defense Nationale" of which more will be said later. They are government short-time obligations—a part of the government's floating debt and none of them have a life of more than twelve months. Under ordinary conditions their classification as liquid assets would be entirely proper and a refusal by the banks now to view them as such would be a terrific blow to the government's credit. An opinion of them can better be formed after an examination of the financial position of the government. Unfortunately they are not separated from the commercial discounts in the statement and we can form no very accurate judgment of their amount or consequent importance.

²⁵ These figures are consolidated from those given by W. C. Huntington, United States Commercial Attaché, at Paris in *Special Report No. 24*, dated May 16, 1922. The banks included are: Crédit Lyonnais; Société Générale; Comptoir d'Escompte; Banque Nationale de Crédit; Crédit Industriel et Commercial; Banque de Paris; and Union Parisienne.

We can, however, notice that there is a very slight margin of safety in the relationship of the total liquid assets to the total demand liabilities. As shown by the percentages given, the demand liabilities were 94 per cent of the liquid assets in 1920 and 93.8 per cent in 1921. Since the statements of French banks are not demanded frequently and without warning as in the United States, it is reasonable to assume that the figures given do not reflect a condition less favorable than the average and there may even have been a little "window dressing."

If the liquid assets as given should shrink as much as (say) 7 per cent they would be inadequate to meet the demand liabilities and holders of demand claims would have to wait for the liquidation of other assets which are less than 11 per cent of the total, liquid assets being 89.5 per cent in 1920 and 89.7 per cent in 1921. This margin of less than 11 per cent is far from adequate in a period of general uncertainty.

Another way of expressing the margin of safety is to examine the proportion of demand liabilities to total liabilities. As shown above they were 84 per cent for 1920 and 84.2 per cent for 1921.

What conclusions may be drawn? Thus far there have been but few important bank failures. One was that of the Banque Industrielle de Chine with liabilities of over 950,000,000 francs, net assets of 629,000,000 and a deficit of 321,000,000 francs. A smaller institution—the Société Centrale des Banques de Province has also had considerable difficulties. That troubles have been no more serious during a period when prices have fallen from a level of 510.3 for 1920 (1913 being 100) to 314.2 in April, 1922, is certainly reassuring and a tribute to French financial ability.

COMPARATIVE STATEMENT OF THE PRINCIPAL FRENCH BANKS AS OF DECEMBER 31, 1920 AND DECEMBER 31, 1921

(in francs—000,000's omitted)

	1920	1921
<i>Assets</i>		
Cash on hand and in banks	2,466.3	2,057.5
Bills discounted and "Bons de la Defense Nationale"	11,298.9	12,370.3
Secured loans: coupons for collection	1,317.0	1,192.2
Current accounts "Debtors"	4,160.7	3,182.0
Total liquid assets	19,242.9	18,802.0
Various debtors, acceptances	334.6	306.3
Securities held	607.5	590.6
Exchange operations guaranteed	455.3	276.9
Miscellaneous accounts	57.8	59.2
Real estate	174.6	207.7
Installment paid on dividends to shareholders	614.0	605.4
Total assets	21,486.7	20,948.1
<i>Liabilities</i>		
Sight deposits:		
Checking accounts }	17,177.8	17,008.4
Current accounts }		
Accounts demandable after collection, time deposits, notes payable	920.6	641.5
Total demand liabilities	18,098.4	17,649.9
Guaranteed exchange operations	452.4	276.9
Miscellaneous accounts	218.2	182.3
Capital	1,900.0	1,950.0
Reserves	644.7	674.2
Profits for fiscal period	173.6	153.7
Brought forward from last year	48.2	61.1
Total liabilities	21,535.7	20,948.1
Proportion of liquid assets to total assets	89.5%	89.7%
Proportion of demand liabilities to liquid assets	94.0%	93.8%
Proportion of demand liabilities to total liabilities	84.0%	84.2%

Nevertheless there is every reason to watch the situation closely. As just pointed out the margin of safety as shown in December, 1921, is a narrow one and not adequate for meeting any great emergency. If an emergency should appear the banks could turn to the Bank of France and an examination of its condition comes next.

THE BANK OF FRANCE

Outstanding facts to be kept in mind are: the Bank of France is the only note-issuing bank in France; it is a central bank to which other banks of France may and do turn for aid when needed; it is the fiscal agent of the French Government; and it is the custodian of the gold reserves of the country. In other words it performs the usual functions of a central bank, much as do the Bank of England, the Bank of Germany and the twelve Federal Reserve banks of the United States.

It is accordingly placed in a position

between the commercial banks, which may apply to it for relief in case of need, and the government, which likewise may turn to it for help. We have noticed that the other banks have but a narrow margin of safety. We shall next examine the condition of the Bank of France in order to ascertain its readiness to stand a strain from either direction and then inquire into the financial condition of the government.

The status of the Bank of France at the present time as compared with its condition in 1913 is shown by the selected items for various dates in the table below.

Only a few items from the balance sheet have been chosen but they are the ones that picture most clearly the problems facing the bank. Notice, first, the liabilities which are chiefly note issues. These note issues have grown from 5,713,600,000 francs in 1913 to 36,487,500,000 francs at the end of 1921 and 36,449,800,000 francs

SELECTED ITEMS FROM THE BALANCE SHEET OF THE BANK OF FRANCE ON VARIOUS DATES

(in francs—000,000's omitted)

	Dec. 24, 1913	Dec. 24, 1920	Dec. 24, 1921	Aug. 10, 1922
<i>Assets</i>				
Gold.....	3,517.4	5,500.2	5,524.2	5,530.5
Silver and small coins.....	640.1	206.1	279.8	235.4
Investments in public (government) securities.....	200.0	26,800.0	24,800.0	23,700.0
Other investments.....	220.0	223.2	223.3	232.4
Public (government) loans and advances.....	5.4	3,980.0	4,142.0	4,272.0
Other loans and advances.....	772.4	2,217.6	2,240.9	1,993.9
Total Assets.....	6,987.9	44,735.9	42,561.5	41,342.9
<i>Liabilities</i>				
Notes in circulation.....	5,713.6	37,552.2	36,487.5	36,449.8
Government deposits.....	403.4	116.0	26.0	73.6
Other deposits.....	575.3	3,483.3	2,717.1	2,210.8

on August 10, 1922. They were 82 per cent of the total liabilities in 1913, 86 per cent of them in 1921, and 88 per cent in 1922. In that period total liabilities increased 34,355,000,000 francs and note issues 30,736,200,000 francs. The increase in note issues accounted for 80 per cent of the total increase in liabilities. On October 5, 1922, the note issues had further increased to 37,514,493,000 francs.

When we turn to the assets it is not hard to discover where the bank has been giving most of its assistance. Two items—"Investments in public (government) securities" and "Public (government) loans and advances" account for 80 per cent of the increases. Investments other than in government securities have scarcely changed, while loans and advances other than to the government have increased less than the rise in prices.

What is the effect of these changes on the condition of the Bank of France? First it may be noticed that the percentage of the gold reserve to note issues and deposits has declined from 52 per cent in 1913 to 14 per cent in 1922, although the actual amount of the gold reserves had very considerably increased. Next, government securities, loans and advances, which were 8 per cent of total assets at the end of 1913, were 84 per cent of total assets at the end of 1921. The dependence of the Bank of France on government financing is evident.

On December 16, 1920, an agreement was signed between the Minister of Finance and the Government of the Bank of France under whose terms the advances of the Bank to the government were not to exceed twenty-seven billion francs in 1921 and be reduced to twenty-five billion francs by January 1, 1922. This was accomplished, and this item on December 31, 1921 was 24,600,000,000 francs or 400,000,000

francs less than the agreed maximum. An energetic effort has been made to continue the reduction and by the end of March, 1922, the amount had been reduced to 21,500,000,000. It has again increased and is now 23,500,000,000 francs.

There has then been a slight decline in the volume of note issues of the bank and in the amount of its loans to the state. Unfortunately there has been at the same time some increase in the bank's holdings of Treasury Bills which appear in our statement as "Public loans and advances." They were 4,272,000,000 on August 10, 1922.

The bank is, as we have said, between two dangers. One is the possibility of pressure from the public and especially the commercial banks in case of an adverse development in business conditions. The other is the state of the government finances. Advances to the government increased enormously during the war and have as yet not greatly declined. Is there any possibility that the government cannot soon reduce its liabilities to the bank or, still worse, that it may have to turn to the bank for increased assistance?

GOVERNMENT FINANCES

French Government finances cannot be clearly presented. Methods of handling budget matters are such that accurate statements are almost impossible to give. It might seem wise to take the actual receipts and payments for a given twelve-month period—a fiscal year—and view it as a fiscal period. However, the accounts for the official accounting period or fiscal period, called "exercice," do not record the receipts and expenditures during that period, but the receipts credited and expenditures debited to those accounts, even though some of the receipts accrue and some of the expend-

itures occur at a much later date. While most entries for a given period must be made within the succeeding twelve months some may be delayed as much as five years and others even longer.

In the year 1913 the net expenditure of the French Government was 4,501,-900,000 francs. On March 31, 1922, M. Charles de Laysterie, the Minister of Finance, presented to the Chamber of Deputies his project for the General Budget of 1923. These budget figures for 1923 as compared with those for 1922 are as follows:

21, it was announced that a loan of four or five billion francs would be issued on October 20, presumably to cover the prospective deficit.

But this is merely a beginning of the problem. In the past the French budget has been a maze of complexities. There have been an ordinary, an extraordinary and a special budget in addition to numerous supplementary items. The situation is still confusing but in form at least the budget is more simple and in many respects it is certainly better.

One change has been the elimination

THE FRENCH BUDGETS FOR 1922 AND 1923

(in millions of francs)

	1922	1923	Difference
<i>Expenditures</i>			
Ordinary Expenditures	23,394	21,903	-1,431
Extraordinary Expenditures	1,354	1,277	- 77
Total Expenditures	24,688	23,180	-1,508
<i>Receipts</i>			
Normal Receipts	19,831	18,060	-1,771
Exceptional Receipts	3,550	1,225	-2,325
Borrowings	1,320	3,900	+2,580
Total Receipts	24,701	23,185	-1,516

These figures indicate a budget over five times as large as before the war. They also show a budget that does not balance. For 1922 the estimated borrowings are 1,320,000,000 francs while for 1923 they are 3,900,000,000 francs, an increase of 2,580,000,000 francs. The prospective deficit of 3,900,000,000 francs it was proposed to meet by certain reductions in expenditures and increases in revenues but the proposals encountered serious opposition. Action was delayed and on September

of the special budget which included the expenditures on reconstruction that France has expected to recover from German reparation payments. The operations under this heading have been undertaken by a company organized under a law of October 10, 1919, and known as the "Crédit National Pour Faciliter La Réparation des Dommages Causés Par La Guerre." It is usually referred to as the Crédit National. It was formed with a capital of 100,000,000 francs by a number

of French banks. It raises capital for reconstruction purposes by the sale of its own bonds, the French Government guaranteeing interest, redemption and premium charges for which provision is made in each year's governmental budget.

On March 23, 1922, the budget dealing with these special or "recoverable" items was presented, calling for an expenditure (in 1922) of 22,300,000,000 francs to be raised by various types of loans. About ten days later the Chamber of Deputies were asked to vote additional credits of 2,000,000,000 francs on the 1921 account.

If the proposed 22,300,000,000 francs of the "recoverable budget" for 1922 be added to the 24,688,000,000 as already stated for that year the total is 44,988,000,000 francs. Then, too, allowance must be made for the budget of the postal, telegraph and telephone services, which are not now included in the ordinary budget. Just what the totals should really be is very difficult to determine. Several months ago the League of Nations²⁶ stated them as follows for 1921, and 1922:

1921—Closed accounts—45,573,306,000 francs
1922—Budget estimates—44,581,991,000 francs

Without pretending to accuracy of statement where accuracy is entirely impossible we are at least warranted in saying that the budget is still well above 40,000,000,000 francs, perhaps nearly 45,000,000,000. If the word "budget" is objected to as not sufficiently precise one may refer to the proposed expenditures for which the government is sooner or later liable.

These heavy expenditures have been going on for years with each year a heavy deficit, met by borrowing with its consequent annual addition of

interest charges. The growth in the public debt charges has been as follows:

GROWTH IN PUBLIC DEBT CHARGES IN FRANCE
(in millions of francs)²⁷

1913—	1,355
1914—	1,360
1915—	1,818
1916—	3,327
1917—	4,816
1918—	7,021
1919—	7,903
1920—	11,747
1921—	11,636
1922—	13,191

The amount of the debt charges for 1922 is almost three times the total budget of 1913.

The French Government has been reducing its expenditures in spite of this burden. For recent years they have been as follows (excluding the "recoverable budget"). The figures for 1922 and 1923 are of course estimates.

1920—	27,181,000,000 francs
1921—	26,499,000,000 "
1922—	24,688,000,000 "
1923—	23,180,000,000 "

In spite of this the difficulties are growing more and more acute. Although expenditures are less each year, there is each year a deficit to be met by more and more borrowing. Interest charges grow heavier and heavier, adding to the difficulties with each successive budget.

What has been said makes it clear that one must be on his guard in speaking of the French budget. For some purposes it may be entirely proper to give as budget figures only the 23 or 24 billion francs first mentioned. But if we are to consider the total annual expenditures of the government, both direct and indirect, and allow for all of the financial burdens that are accumulating for solution, we must not omit

²⁶ *Memorandum on Public Finance*, Geneva, 1922, pp. 44 and 45.

²⁷ Yves Guyot, "Les Dangers Budgétaires," *Journal des Economistes*, July 15, 1922, p. 9.

the "recoverable" budget, deficits in the operation of government monopolies and other supplementary items. We must not misunderstand fiscal terminology, no matter what the advantages of such terminology in French Government accounting.

Reference has been made to the League of Nations' statement regarding the 1922 budget. Like any other statement in this field it has within a few months become inaccurate in detail but it is to be relied upon in its main features. On the expenditure side it is as shown in the table below for 1922.

This statement attempts to include all items except expenditure on account of amortization of public debt

which was 3,551,423,222 francs for 1921 and estimated at 4,255,751,626 francs for 1922. Without this the 1922 deficit is 21,694,420,000 francs and with it, 25,950,171,626 or considerably over half of the total. Even without amortization, France has in sight only a little more than one-half of the needed funds. The other half must come either from reparation payments or through borrowing. Later discussion will make clear the improbability of the former, which leaves the latter as the only method by which the funds can be secured.²³

Much advice has been given France by well meaning persons who insist that her problems are to be solved by a reduction of expenditures. A glance

ANALYSIS OF THE FRENCH BUDGET OF 1922

(in francs—000's omitted)

	Budget Estimate	Percentage of Total
1. Defense	4,921,993	11.0
2. Pensions		
(a) War pensions	4,198,636	9.4
(b) Other pensions	1,066,993	2.4
Total pensions	5,265,629	11.8
3. Reconstruction	17,885,790	40.1
4. Subsidies	209,895	.7
5. Unemployment	5,400	...
6. Education	1,409,375	3.1
7. Interest on public debt	10,683,587	24.0
8. Deficit on public undertakings:		
(a) Railway and Harbour of Réunion	2,335	...
(b) State Railways	121,591	.3
(c) Alsace-Lorraine Railways	35,642	.1
(d) Postal and Telegraph Services	207,474	.5
9. Capital Expenditure	1,201,315	2.9
10. Miscellaneous Expenditure	2,452,143	5.5
Total Net Expenditures	44,581,991	100
Estimated Revenues	22,887,571	...
Deficit	21,694,420	...

²³ The French Government is relieved of direct responsibility for finding much of this money through its agreements with the Crédit National, groups of industrials and others, but it is responsible for the debt thus created.

at the above table will show that this is not the easy task that many have imagined. It is to be remembered that France has been reducing and is continuing to reduce her ordinary expenditures. Latest available estimates for 1923 are 23,180,000,000 or 4,000,000,000 francs less than the 27,181,000,000 francs for 1920 and this in spite of the fact that debt charges grew by 1,444,000,000 from 1920 to 1922 and will be considerably larger in 1923 than in 1922. This increase in 1923 is said to be 584,000,000 francs or a total increase of 2,028,000,000 francs over 1920.²⁹

There has been considerable criticism of French military expenditures. It is not a justification of military policies and the remaining military expenditures to point out that French appropriations for defense have been reduced both absolutely and relatively. The budget for 1921 (closed accounts) carried 6,820,759,000 francs for "defense" and the estimate for 1922 only 4,921,995,000 francs, a reduction of 1,898,764,000 francs in one year.³⁰ Pension estimates carried a reduction of 1,439,434,000 francs. In 1913, the ministers of War, Navy, Colonies and Pensions received 35 per cent of the expenditures and in 1923 only 21 per cent.³¹ The League of Nations' analysis above is on a different basis but it shows for "defense" and "pensions" only 22.8 per cent of the total for 1922.

The leading difficulties (though not the only ones) in securing any substantial reduction are (1) the high price level which is still over three times

that of 1913; (2) the obligation to continue reconstruction expenditures which are increasing year by year; (3) pensions which, although declining, must remain relatively high for years to come and (4) interest on the public debt. It is worth while to notice the following percentages of the total budget in the League of Nations' estimate on page 53.

Pensions.....	11.8%
Reconstruction.....	40.1%
Interest on public debt....	24.0%
Total.....	75.9%

What advice shall be given to France on these items? Shall she reduce her pension appropriations? Ignoring every consideration of justice to those who fought and suffered in the war, is such a procedure a political possibility? What government could stand if it made such a recommendation? Should she abandon further reconstruction work? Should she cease to pay interest on her debt? She may by refunding part of the debt at lower rates save something here and has already done so,³² but such amounts cannot under present conditions be large and will be more than offset by the annual additions to the principal of the debt and the consequent increase in debt charges. And yet these three items constitute nearly 76 per cent of the total.

Many who have analyzed the French revenue system contend that her revenues from taxation should and could be increased. That this could be done seems altogether probable although the writer has made no independent analysis. Yet only a very thorough-going

²⁹ W. C. Huntington (U. S.) Commercial Attaché at Paris, *Special Report No. 27; The French General Budget for 1923*.

³⁰ League of Nations Memorandum on Public Finance, p. 74. The 1922 figures are only advance estimates and supplementary appropriations may be asked for later.

³¹ W. C. Huntington, *op. cit.*

³² Early in the present year (1922) France was able to reduce by $\frac{1}{2}$ of 1 per cent the interest on national defense bonds with a consequent saving of 300,000,000 francs in interest charges. *Journal of Commerce*, February 23, 1922.

optimist could expect such reforms to balance the budget.

What has brought about this deplorable situation? France had the same problem of war expenditures, war indebtedness and inflation as other countries intensified by the devastation of part of her best territory. The German invasion deprived her of the economic output of that area during the war and in part for years afterward. At the same time, taxes could not be

being in favor of obligations of relatively short term, sold chiefly at home.

Let us next notice the volume of debt already in existence. The most recent detailed statement available is for June 30, 1922 and may be summarized as shown in the first table below.

This statement does not include the Public Service Debt, which is made up of old age and other pensions. Also the figures are provisional, not having

THE FRENCH PUBLIC DEBT—JUNE 30, 1922

(francs)

Floating Debt.....	87,025,251,000
Term Debt or Debt by Annuities.....	26,139,116,000
Perpetual and Long Term Debt.....	149,317,342,000
Advances from Banks.....	23,300,000,000
General Total.....	285,781,709,000
Less Certain Deductions.....	3,733,260,000
Net Total.....	282,048,449,000

collected from these regions. At the close of the war she was faced with the task of reconstruction. She believed Germany should pay for it but immediate collection of large amounts was out of the question. Postponement until

been passed on by the Court of Accounts. The External Debt counted in dollars, pounds, yen, etc., has been converted into francs at par. Grouped as internal and external it is as shown in the next table.

THE FRENCH PUBLIC DEBT—INTERNAL AND EXTERNAL

	Internal	External
Floating Debt.....	70,033,440,000	16,991,811,000
Term Debt.....	7,395,280,000	18,748,836,000
Perpetual and Long Term.....	149,317,342,000	.....
Bank Advances.....	23,300,000,000	.....
Totals.....	250,046,062,000	35,735,647,000

Germany could pay was neither possible nor desirable and the work was begun at once. The large sums needed could not be raised by taxation and if they had been, the later adjustment with Germany might have been made more difficult. Consequently the funds were borrowed, the decision

At certain recent dates, the debt has been as follows:

1913.....	33,637,000,000
July 31, 1920.....	235,740,000,000
June 30, 1921.....	267,281,000,000
April 30, 1922.....	274,240,097,000
June 30, 1922.....	282,088,449,000

Interpretation of this debt is perplexing because of the depreciation of the franc. This lessens the burden of the internal debt since the price-level is still over three times pre-war. Yet if this allowance is made there should also be a proper allowance on the external debt. If this be done by assuming the franc to be worth one-half of par, (it actually is about 45 per cent at the time of writing and was not 50 per cent last April) the foreign debt becomes 71,471,294,000 francs and the total debt 321,517,356,000 francs. If the franc should go back to its old par of 19.3 the burden remains at 282 billion francs. But it would then be even more impossible to bear. A restoration of the value of the franc means a fall of prices and an inability to collect the same amount of revenue as before.

There is still another difficulty with the debt. Over 30 per cent of the total is floating, i.e., due on demand or at the end of a period not exceeding one year. Of this floating debt, nearly 17,000,000,000 francs is held abroad.³² There is danger that if the franc depreciates much more, or if a plan were announced for stabilizing the franc at or near its present value, foreign holders of this floating debt would either immediately sell their holdings on the French markets or refuse to accept new bills as their present holdings mature. The consequences would be serious.

The "Term Debt" of 26,139,116,000 francs includes 15,195,615,000 francs of "Advances from the American Treasury" which is due on demand but under our recent refunding act may perhaps be made payable in 1947.

³² It should be pointed out that the advances from the American Treasury and bonds given to the U. S. Government for sale of army supplies are not included in "Floating Debt" but are in the "Term Debt." Bills remitted to the British Treasury (14,525,723,000 francs) and to the Bank of England (1,639,300,000) are in "Floating Debt."

It also includes 5,665,342,000 francs of two-year Treasury Bills, some of which may have been issued some time ago and hence will fall due in less than two years from now. There was an issue of 5,300,000,000 francs of such bills in 1921.³⁴

But, perhaps, the percentage of the floating debt is declining and the menace is being lessened. Unfortunately, this is not the case. They are short term obligations issued for three months, six months and one year at 4, 4½ and 5 per cent respectively, now reduced to 3½, 4, and 4½ per cent.

Interest is payable in advance. They are exempt from taxation; their holders possess conversion preferences in subscription to future long-term loans, the Bank of France accepts them as collateral and they are on sale throughout the country, at postoffices, tax collectors' offices, treasury agencies, etc. These have made them an attractive investment and they have been very popular. The Treasury has relied upon them very heavily. Of the sums raised by loans on the domestic market these "Bons de la Defense Nationale" constituted 60 per cent in 1919, 37 per cent in 1920 and almost 70 per cent in 1921.³⁵

The increase in the amount of them outstanding is shown by the following, each date being the close of the month named.³⁶

FRENCH TREASURY BILLS OUTSTANDING
(francs)

December, 1914.....	1,619,000,000
" 1916.....	12,574,000,000
" 1918.....	22,334,000,000
" 1919.....	46,140,000,000
" 1920.....	52,352,000,000
" 1921.....	63,740,000,000

³⁴ W. C. Huntington, *Special Report No. 9* "The Significance of the Short Term Treasury Bills, etc.," Annex "A."

³⁵ *Ibid.*

³⁶ *Ibid.*

By the end of February, 1922, the amount was approximately 67,000,000,000 francs and this was reduced to 6,528,000,000 francs by April 30. While this is encouraging, the general fiscal situation does not warrant the conclusion that the improvement can continue.

The government's danger is a two-fold one. The first is the possible inability to balance the budget sufficiently to maintain its prestige. This might mean serious difficulty in further borrowing reflected in higher interest rates, or otherwise. Thus far this has not occurred, rates having been reduced. The other danger is that the holder of debts now outstanding, especially the Treasury Bills, may not be willing to renew their holdings. This has not yet happened. In spite of all the figures we have presented, France is not bankrupt in the sense that she cannot market her securities. The *Crédit National* has just recently sold a loan of 3,290,000,000 francs.

CONCLUSIONS

What conclusions seem warranted? France, aside from her financial problems has been and is improving. Trade is, on the whole, good: there is little unemployment; reconstruction has been going on rapidly; the trade balance is almost favorable, or rapidly becoming so. This growth is being secured by the hard work and the economy of the French people. If one were drawing conclusions from these facts alone, he would be compelled to say that the French are at the present time more nearly able than either Italy or Germany to begin external payments, such as interest on foreign debts.

But this is only a part of the story. As in other Continental countries there is still much inflation and there are probably many overdue failures. The commercial banks are operating on a

very narrow margin of safety and if there should be any sudden increase in business failures they would presumably turn to the Bank of France for assistance. That bank, however, is not in a condition to meet such a strain except by the perilous method of large note issues, i.e., by inflation.

An even worse danger is the condition of the government financing. Annual deficits of some 50 per cent persist and there are no indications that they will be less for several years to come, that is, if the promised reconstruction work is to continue. If one may judge by the past the French public is able to continue buying large quantities of *Crédit National* and government securities. But the debt charges are carried and should be carried in the ordinary budget and sooner or later must be met out of taxation (unless reparation payments solve the problem). As these debt charges become larger and larger, the government's problems increase. No sinking fund payments are being met. There has been some reduction in the principal of her external debt, but the total is large, amounting on June 30, 1921, to 36,393,900,000 francs (at par rate of exchange) or to 77,306,300,000 francs at the rates of exchange prevailing on that date.³⁷ The amount on April 30, 1922, we have already estimated quite generously at 71,650,000,000 francs.

The French Government has claims on foreign governments representing advances in cash, in securities, in book credits and in war material. These amounted to 14,082,000,000 francs on June 30, 1921.³⁸ These debtors of France are Russia, (both the old régime and various later governments, the amounts being 5,755,000,000 francs)

³⁷ League of Nations, *Memorandum on Public Finance*, p. 47.

³⁸ *Ibid.*, p. 49.

Belgium, the Serb-Croat-Slovene State, Roumania, Greece, Poland, Czecho-Slovakia, Italy, Montenegro, Esthonia, Latvia and Lithuania. These credits cannot be realized upon, and so will afford no relief.

If, at any time, deficits cannot be met and necessary new expenditures covered by taxation or by sales of securities, the government must choose between (a) downright default (b) further borrowing from the Bank of France which means a wild and ultimately disastrous period of inflation and (c) some method of scaling down obligations which means (put bluntly) an open or disguised repudiation. Just how this might be done, we need not attempt to say. Possibilities are an arbitrary reduction, say by half, in the rate of interest paid on outstanding bonds and bills, a similarly arbitrary halving of the principal, or a frank acknowledgment of inability to pay certain obligations. Then there is the possibility of a capital levy, but French public opinion, probably, is not ready yet for so drastic a step. Still another possibility is to devalue the franc, deciding that in the future it is the equivalent of (say) seven or eight or nine cents instead of the former 19.3 cents. In any case this would be an inadequate solution, for today the franc is worth much less than eight cents and still the government does not balance the ordinary budget. Besides, as already pointed out, an announcement of devaluation might precipitate a crisis since speculative holdings of francs, especially abroad, might promptly be thrown on the market. Speculation on the matter is idle.

Can France meet her foreign obligations? Her economic position is not so bad that we need give a flat negative, but in the process of reconstruction government credit has become heavily involved and the outstanding debts are enormous. Can the government devise methods of taxation that will divert annually to the Treasury enough of the national income to make the payments due? Probably not. There are numerous criticisms of French taxation but none of the suggestions, even if applied, could furnish sufficient funds for the purpose. If internal obligations were scaled down or cancelled, doubtless the foreign debts could in time be met but it is idle to think of the French public assenting to such a solution.

The only possible conclusion is that in the absence of outside relief nothing can be done to prevent an ultimate readjustment of the French public debt. What should this relief be? A loan? This would merely add to the burden of promises and would not be a solution. Its only justification would be that it would help tide over a temporary emergency until payments from Germany are made on reparation account.

Toward Germany the thoughts of the French of all groups are directed. Some still expect and demand the large amounts originally specified, at least the amounts agreed upon in May, 1921. Others now call for less but there are few, if any, who do not expect a considerable measure of relief from that direction. The situation in Germany will be considered in the next chapter.

Chapter V

GERMANY

Pre-war Germany had an area of 208,780 square miles, a population of 64,926,000 and a consequent population density of 311 per square mile. The population, which had, prior to 1850, been chiefly rural, had concentrated greatly in the cities. Emigration, which for many years had been very heavy, fell off until it was very slight just before the war. In-

Sir R. Henry Rew, as stated in Chapter IV, considers that with a moderate amount of economy Germany could be self-sufficing in food supplies, she actually did import considerable amounts of food and not all authorities agree with Sir Henry's conclusions. Also she depended on outside countries for both food supplies and markets. Let us notice

GERMAN FOREIGN TRADE
(in millions of marks)

	1909	1910	1911	1912	1913
Imports.....	8,526.9	8,934.1	9,705.7	10,691.8	10,770.3
Exports.....	6,594.2	7,474.1	8,106.1	8,956.8	10,096.5
Import Surplus.....	1,932.7	1,460.0	1,599.6	1,735.0	673.8

dustrialization made possible the support of larger and larger numbers of people. The per capita income of this population in 1914 was \$146.¹

This change to an industrial life in Germany resulted in a great dependence on other countries. Although

first her pre-war imports and exports for a series of years as shown by the table above.

Next may be given an analysis of the foreign trade of 1913 by groups of commodities as shown by the table below.

Some of the leading items in Ger-

GERMAN FOREIGN TRADE IN 1913
(in millions of marks)

	Imports	Exports	Surplus of Exports (+) or of Imports (-)
Live Animals.....	289.7	7.4	- 282.3
Beverages and foodstuffs.....	2,759.5	1,035.9	- 1,723.6
Raw materials.....	5,003.5	1,578.0	- 3,425.5
Semi-manufactured products.....	1,238.8	1,139.4	- 99.4
Finished products.....	1,478.8	6,395.8	+ 4,917.0
Total.....	10,770.3	10,096.5	- 673.8

¹ *The Income in the United States* by W. C. Mitchell, et al., p. 85. Based on estimates of Sir Josiah Stamp.

man foreign trade by percentages of the total are the following:²

GERMAN FOREIGN TRADE BY PERCENTAGES OF THE TOTAL

<i>Exports</i>	Per Cent of Total
Iron goods, including tin plates. . . .	13.2
Machinery, etc.	7.5
Coal, coke and briquettes.	7.0
Woolen goods, including raw and combed wool.	5.9
Cotton goods, including cotton yarn and thread and raw cotton.	5.6
Total.	39.2
<i>Imports</i>	
Raw materials.	35.3
Food, tobacco, etc.	28.3
Manufactures.	3.9
Total.	67.5

Of the raw materials, imported cotton was most important, followed in order by hides and skins, wool, copper, coal, timber and iron ore. Of food-stuffs, cereals came first (12.2 per cent), followed by oilseeds and cake, cattle, coffee, eggs and tobacco.

An examination of these trade statistics shows first of all that Germany had an excess of imports as did the other countries we have examined. This excess averaged 1,480,000,000 marks for the five years given and was offset by invisible items the chief of which were the earnings of the merchant marine and interest on foreign investments. In 1914 tonnage of her merchant fleet (steel, steam and motor vessels of over 100 tons) was 5,098,000 gross tons, being next to that of the United Kingdom which, however, was much larger, being 18,877,000 tons.

² Summarized from J. M. Keynes, *The Economic Consequences of the Peace*, pp. 190-2.

Her foreign investments were estimated by Sartorius von Waltershausen in 1915 at between twenty and twenty-five billion marks. Riesser in 1906 had estimated the same amount but thought it too low.

The total volume of foreign trade in 1913 (exports and imports combined) was 20,866,800,000 marks or 321 marks (\$76.40) per capita, a large amount compared with the per capita income of \$146 or with the per capita volume of the foreign trade of the United States which in 1914 was \$42.57, (our per capita income being \$335). It is important to observe the composition of this trade. Nearly one-half of the imports in 1913 were raw materials and considerably over 60 per cent of the exports were manufactured products.

It is necessary, in discussing the present situation in Germany, to keep in mind that we are dealing with a country that prior to the war was largely industrialized and, hence, dependent on foreign supplies of raw materials and on the retention of markets in which she could sell her goods. An interference with either was bound to be disastrous—more so than in France and probably more so than in Italy, although less so than in England.

A balance sheet for pre-war Germany is to be found on page 61. Trade figures are five-year averages and the other items are estimated.³

This balance sheet indicates that Germany was accumulating new foreign investments each year to the extent of about one billion marks (\$238,000,000). Adding this to her purchases of goods, there was a total of 10,750,000,000 marks, met only to the extent of 8,250,000,000 marks by exports of merchandise. The balance

³ Taken from Charles Rist: *Les Finances de Guerre de l'Allemagne*, p. 232.

A BALANCE SHEET FOR PRE-WAR GERMANY
(in millions of marks)

Debtor		Creditor	
To purchase of foreign goods.....	9,750	By sale of merchandise.....	8,250
Ditto foreign securities and investments.....	1,000	By coupons of foreign securities held by Germans and dividends on German enterprises abroad.....	1,500
		By freight for sea transport on foreign account.....	500
		By disbursement of foreigners in Germany, insurance premiums paid to Germany, companies, etc.....	500
Totals.....	10,750	Totals.....	10,750

of 2,500,000,000 marks was met in three ways: first and largest, by interest and dividends on her accumulated foreign investments—1,500,000,000 marks; second, by the earnings of her merchant marine—500,000,000 marks; and third, by services rendered to foreigners—tourists, business men, etc.—500,000,000 marks.

PRE-WAR GERMANY SUMMARIZED

We may summarize by saying that pre-war Germany was prospering and had a large foreign trade. Although her per capita income (\$146) was higher than that of Italy (\$112) it was less than that of France (\$185) or the United Kingdom (\$243) or the United States (\$335). Her population depended much more on foreign trade than did that of France. She had a larger industrial proletariat than that of France and the ownership of property was less widely distributed.

The war period may be passed briefly as we have done in speaking of other countries. With certain important exceptions it affected Germany as it did the rest of the belligerents. She lost many of her best men by death and wounds, her machinery and equipment depreciated and her agri-

cultural lands deteriorated through lack of fertilizers and of careful cultivation. Her experiences differed from those of France and Italy in two ways that call for attention. Her foreign trade during the war dwindled until it became of small importance compared with that of the pre-war years. The trade of her enemies suffered severely but not to so great a degree. On the other hand the war was fought for the most part outside of Germany and she was not faced with the task of restoring large devastated areas.

In reciting the leading economic provisions of the peace treaty, we shall not raise the question of the justice of the penalties or sanctions imposed. The writer may briefly record his opinion that, no matter how intense one's convictions may be, the question is today less important than many others and is diminishing in importance as the months pass. Avoidance of future conflicts and the restoration of economic activity, at least to the pre-war volume, so far surpass it in significance that we must, if need be, subordinate our convictions regarding German guilt and punishment, the mistakes in the Versailles Treaty and other matters connected with the past. It is time to

look forward and not to dwell on the past. Whether this view is the correct one or not each reader must decide for himself after an examination of the facts already presented and those in later pages.

We need not attempt a complete enumeration of the economic clauses of the Treaty of Versailles. They have been presented at length and in many places. For our purposes reference need be made to only three or rather to three groups of them.

One was the imposition of a reparation payment. The total amount of this was not indicated but was left to be settled by a Reparation Commission whose decision was to be reached by May 1, 1921. For this, there seem to have been several reasons. One was the acute difference of opinion (protests coming particularly from the American delegates) over the items for damages that could properly be included in view of the terms of the pre-armistice statements and the armistice terms. A second was a similar difference of opinion regarding German capacity to pay. Third was the intensity of feeling among the peoples of the Allied countries, particularly France and England, who believed that the defeated enemy could and should pay all the costs of the war. This feeling was increased, rather than diminished, by numerous unfortunate utterances of prominent statesmen. Fourth is the fact that the settlement of reparation charges in money terms was particularly difficult in a period of uncertain price levels. A determined amount might prove to be too low if prices should later rise (as they actually did for many months) or too high if prices later fell (as they did during 1920 and 1921).

In Chapter IX we shall refer to the decisions as to the amount of the pay-

ments, pausing here only to notice that the sums demanded were large, and to indicate the ways in which a country can make payments. The mechanism of payment is technical and is connected with credits, foreign-exchange, bank reserves and other such things. These are highly important but less so than the underlying economic conditions which they merely reflect.

METHODS OF INTERNATIONAL PAYMENT

Payments from one country to another can be made chiefly in four ways. One is by the shipment of gold. This method is unimportant when the sums involved are large. We have observed in Chapter I that Europe today owes us over \$14,000,000,000. Gold supplies are entirely inadequate to pay any large fraction of that amount, or even to meet the interest charges. If existing amounts were shipped, the gold basis for the finances of the debtor country would be removed and its credit structure would probably crumble, while the receipt of the gold by the creditor country might merely furnish a basis upon which to inflate its own credit structure. Let us dismiss gold as unimportant when large sums are involved.

Second is the rendering of services. At the beginning of this chapter, we noticed that, before the war, Germany rendered services in several ways and by doing so created credits amounting to perhaps one billion marks per annum. One-half of this was earned by the German merchant marine which carried freight for foreigners, collecting five hundred million marks for doing so. The other half was paid by foreigners traveling or resident in Germany who paid hotel bills and traveling expenses, and by foreign business men who insured with German insurance companies, etc.

Third is by the sale of securities. Other parts of the world became indebted to Germany and temporarily adjusted the matter by selling their stocks and bonds to Germans. We Americans have similarly purchased several billions of dollars of foreign securities in recent years. But all possible emphasis should be placed on the fact that this sale of securities is not an actual payment. It is merely a postponement, a promise to pay later.

Fourth and most important is the exportation of commodities. Pre-war Germany bought annually from abroad 9,750,000,000 marks' worth of goods. To the extent of 8,250,000,000 marks she paid for these by exporting her own merchandise.

Let us return now to the question of reparations. A decision to require a large payment necessarily meant a demand upon Germany to pay in one or several of the ways mentioned. Although a small amount of gold could be taken and has been (while at the present writing Belgium is demanding another 100,000,000 marks in gold) the total could not be of any considerable importance. The offer of securities, i.e., German Government bonds or promises of any kind, would not be a payment at all but merely a promise, a postponement to a later date. This leaves chiefly two possibilities—services and commodities. The attitude of the framers of the treaty (and to a very important degree of their peoples behind them) toward these two matters becomes very important and their views are reflected in some of the other provisions of the treaty.

We observed above that the most important of the economic provisions fell into three groups, and we have discussed the first of these—the demand for a large reparation payment.

Next are the stipulations that affected German capacity to render service. The most important pre-war service of Germany was performed by her merchant marine. Through the ravages of the war she lost many vessels but of more importance are the provisions of the treaty from which the following excerpts are taken:

Germany recognizes the right of the Allied and Associated Powers to the replacement, ton for ton (gross tonnage) and class for class, of all merchant ships and fishing boats, lost or damaged during the war.

The German Government, on behalf of herself and so as to bind all other persons interested, cedes to the Allied and Associated Governments the property in all the German merchant ships which are of 1,600 tons gross and upwards; in one-half, reckoned in tonnage, of the ships which are between 1,000 tons and 1,600 tons gross; in one-quarter, reckoned in tonnage, of the steam trawlers; and in one-quarter, reckoned in tonnage, of the other fishing boats.

As an additional part of reparation, Germany agrees to cause merchant ships to be built in German yards for the account of the Allied and Associated Governments as follows:

Further quotation is not necessary. Germany agrees if demanded to build and deliver to the Allies ships of such type as they may specify up to 200,000 tons per year for five years. The value of these deliveries is to be credited to the reparation account.

It will be noticed that Germany was required to surrender all of her larger merchant ships and an important fraction (from one-quarter to one-half) of her smaller ones. Further she bound herself to deliver large amounts of tonnage to be later constructed. Some of these requirements were later modified but not sufficiently to weaken our conclusions. Germany's capacity to pay by rendering service with her

merchant fleet was immediately reduced from a possible 500,000,000 gold marks per annum to nearly or quite nothing (accepting the pre-war earning power as a basis). Her ability to create a new fleet was weakened by the demand for ships later constructed. This meant the diversion of labor and capital that might have been used in other ways: (1) to construct ships for delivery to the Allies and (2) to construct other ships for her own use, replacing the ones surrendered.

How far was Germany's capacity to render other service weakened? There is nothing in the treaty that operates to keep tourists out of Germany, although antipathy toward the Germans and the economic situation there may have had some influence. On the other hand, the low level of the mark on the world's exchange markets has encouraged travel and residence in Germany.

German ability to render financial service to other countries has probably been greatly impaired. Her foreign trade and financial organization was greatly weakened from 1914 to 1918. War and post-war hatred has played an important part and has been powerfully aided by strong pleas everywhere to turn business to home banks and insurance companies.

The net result of these forces can be stated with precision by no one. If a calculation could be made it would probably show that German capacity to render services abroad after the war was no more than from one-fourth to one-half her pre-war capacity.

The other leading method of payment is by the delivery of commodities. German capacity to do this was affected in several ways.

The first was by the reduction of her territorial area. She has lost Alsace-Lorraine, Poland, Upper Silesia and other minor areas. She has for at

least fifteen years lost the coal output of the Saar Basin. She has also lost all of her colonies.

Second, was the temporary reduction in capacity because of her losses of man power during the war, the lowered vitality of her entire population and the depreciation of her capital. The last factor manifested itself in an impoverished soil, a deteriorated railway system, poorer tools and machinery in her factories, a greatly retarded building program and in other ways. These are, of course, difficulties that were faced by all of the belligerents and some of them even by neutrals.

Third come the provisions of the treaty which relate to commercial relations. Germany is required to extend most favored nation treatment to products from the Allied and Associated countries. To this in itself there can be no objection. Germany's capacity to pay indemnity is affected because the obligation is not reciprocal. Any treaties entered into before the war binding the Allied and Associated Powers to grant most favored nation treatment to Germany are wiped out by the treaty of peace.

An even more serious check to Germany's export trade has been the hostility throughout the world to German goods and the tendency shown by most countries to erect tariff barriers. The United States passed the Emergency Tariff of 1921 and more recently the Fordney-McCumber Act. France has strengthened her tariff barriers and even England, the home of free trade, has attempted to grant a measure of protection to home industries.

These influences reduced German capacity to pay with commodities by lessening her sources of supply of raw materials and by depriving her of markets.

GENERAL EFFECT OF THE TREATY PROVISIONS

These three groups of provisions (combined with certain associated conditions) were contradictory. A reparation payment was demanded whose amount was not at first determined, but was later set at a large sum. Payment of this necessarily meant the delivery of goods, the rendering of services or both. Other provisions made such payment more difficult (and, in the opinion of the writer, impossible) by weakening German capacity to render service and by imposing obstacles to the exportation of goods.

No reference has yet been made to German holdings of foreign securities—her investments in other countries, which have been estimated at from twenty to twenty-five billion marks. Like other belligerents the Germans sold many of these during the war and much German property in belligerent countries was seized and held, to be used in the settlement of counter claims for damages. Much that is left of the pre-war holdings is doubtless concealed to avoid confiscation. New post-war investments have similarly been concealed. Their amount is at present a matter of guess, the estimates varying widely.⁴

Under the most favorable conditions, a modern country finds it difficult to readjust quickly its economic life in order to begin making large foreign payments. Agriculture, industry, commerce and finance are delicately interrelated and adapted to a certain combination of imports, exports, freight payments, tourist travel, etc. A demand to

make heavy external payments is a demand for a readjustment of intricate economic machinery, a shifting of large amounts of labor and capital. Under the most favorable circumstances such adjustments can be accomplished only slowly by the richest of countries.

Evidence of this is not hard to find. After the close of the war, the United States could not hope to collect at once the interest due her from her European debtors and agreed to a funding of interest for a period of three years. Even today none of those debtors is in a position to pay large amounts, and most of them can as yet pay none at all. It is an economic impossibility. Our survey of Italy shows her inability at present and for an indefinite period in the future. The economic organization of France has been so adjusted that payments of small and increasing amounts could begin if it were not for an internal, fiscal situation that makes it impossible and perhaps politically and socially dangerous to make the attempt. England has announced her readiness to begin payments at once, but many Englishmen seriously doubt her economic capacity.⁵

In a later chapter we shall consider the situation of England, but for the present must again turn to Germany. We have expressed the opinion that the payment of large reparation sums would have been for a time impossible even under the most favorable conditions. The payment was made even more impossible by the loss of her merchant fleet, her foreign investments and her colonies and by her weakened economic con-

⁴ One English banker told the writer he believes the amount at present to be about £500,000,000. Sir Robert Horne in the House of Commons on August 3, 1922, placed the amount at £200,000,000 after making deductions for necessary working capital.

⁵ Thus F. W. Hirst in the *Public Ledger* of September 14, 1922, voices a serious doubt regarding her ability actually to continue making the payments so freely promised only a short time ago.

dition. Moreover, Germany's political condition complicated the problem.⁶ The strongest of governments could not have done the impossible and only a weak government could exist in Germany in the post-war days.

Perhaps it is worth while to observe again that in none of these statements have we intended to express an opinion regarding the justice of any of the terms imposed on Germany at the end of the war. We are attempting an explanation of the present economic situation in Europe. One of the first steps in an undertaking of it is to grasp the fact that the terms were

Let us turn now to the economic developments in Germany since the close of the war. What progress has been made and how near is the country to the pre-war level? We have commented on the difficulties in presenting statistics for Italy and France whose areas have been altered only slightly by the post-war settlements. German frontiers have been changed so completely as to make trustworthy estimates much harder.

AGRICULTURAL OUTPUT

In the following figures for agricultural output amounts are for German

AGRICULTURE IN GERMANY—TOTAL YIELD
(in thousands of tons)

Year	Wheat	Rye	Barley	Oats	Potatoes	Sugar Beets
1913.....	4,043	10,131	3,040	8,618	44,018	16,642
1920.....	2,247	4,933	1,792	4,826	27,877	7,964
1921.....	2,933	6,798	1,933	5,004	26,151	7,552
Per cent, 1921 to 1913.	72	67	63	58	54	45

impossible of fulfillment, even by a people eager and anxious to do so.

That the Germans do not want to make large payments is entirely probable. The writer is quite convinced such is the case. He is equally certain that many subterfuges have been employed to delay payments and to lessen their amounts. Nevertheless the impossible nature of the demands have given Germany an admirable and an entirely adequate excuse for her failure.

⁶ Walter Rathenau, late Foreign Minister of Germany, expressed it in January, 1922, in an address at the Cannes conference: "*Deutschland ist immer ein Land der Ordnung gewesen. Deutschland ist aber durch einen verlorenen Krieg, durch schwere Verluste und durch eine Revolution hindurchgegangen.*" His own murder five months later was evidence of the accuracy of his picture.

territory as it existed in 1921. The figures for sugar beets, however, are for pre-war territory.⁷

A considerable portion of Upper Silesia has since changed hands but that is much more important in a presentation of mineral output than in agriculture.

If, as is claimed,⁸ pre-war estimates overstated yields by perhaps 15 per cent and they are now understated by perhaps 5 per cent, a considerable modification of the above is necessary. Even if this allowance be made, the

⁷ Taken from *Report on the Economic and Financial Conditions in Germany to March, 1922*, by J. W. F. Thelwall, commercial secretary to H.M. Embassy, Berlin, Appendix XXV.

⁸ See e.g., Joseph S. Davis, "Recent Economic and Financial Progress in Germany," *The Review of Economic Statistics*, July, 1921, p. 155.

slow recovery of productivity through 1921 was not encouraging. The shortage of fertilizers and of labor are at least partial explanations. The outlook for 1922 was more promising but the latest reports in the public press are discouraging, stating that the poor weather had seriously damaged the crops with the exception of potatoes, the yield of which is expected to be large.

Agriculture is clearly below pre-war. Even after making every allowance for inaccuracy in estimates, one is forced to the conclusion that the amount of home-grown food is much less per capita than before the war.⁹ In

of another sort that may be utilized.

The numbers of various animals are as shown in the table below, the figures again being for the new frontiers.¹¹

This shows a much better situation. The worst condition, as yet, is the number of swine which is only 70 per cent of 1913—due perhaps to the freedom with which swine were slaughtered during the war.

But even with this better showing in the livestock figures there is clearly no margin for export of food, unless we should assume a very greatly reduced consumption of food per capita. One German¹² authority declares that the "German people must still be

LIVESTOCK IN GERMANY

(000's omitted)

Year	Horses (excluding Army horses)	Cattle	Sheep	Pigs	Goats
1913.....	3,835	18,570	4,988	22,668	3,197
1920.....	3,588	16,806	6,149	14,179	4,458
1921.....	3,683	16,839	5,882	15,875	4,337
Per cent, 1921 to 1913 ...	96	90	117	70	135

addition to the alteration of boundaries there has been a considerable amount of immigration into Germany. One estimate¹⁰ is that the population density of 125 per square kilometer before the war has become 131.3 today.

There is an intensified demand for food and so far as the products named are concerned there is less product. If there is not a lowering of standards, more food must be imported unless, of course, there is home-grown food

content with 55 per cent of the most necessary articles of diet which were available, per head of the population, before the war. The standard of living has been lowered since pre-war days by 45 per cent."

Whether these percentages are correct the writer does not know, but it is entirely clear that Germany's ability to pay reparations, by means of the export of foodstuffs, is even less than before the war and it will be remembered that she then imported a considerable percentage of her food. Such a situ-

⁹ The area of Germany is about 13 per cent less than pre-war and the population about 10 per cent less.

¹⁰ P. Merz, "The Food Supply of Germany," *Manchester Guardian Commercial Supplement*, Section 6, p. 359.

¹¹ J. W. F. Thelwall, *op. cit.*, Appendix XXVI.

¹² P. Merz (Privy Councillor, president of the State Corn Department) *op. cit.*

ation is not surprising. Germany is an industrialized country and must import food and raw materials. Unless there is a revolutionary change in her economic organization this will continue to be the case.

This is illustrated by the figures for German imports for the first three months of 1922, when the food imported (excluding live stock, tobacco and beverages) was valued at 12,605,000,000 marks or nearly 20 per cent of the total imports.¹³

OTHER PRODUCTS

The output of German coal is more encouraging while that of pig iron and crude steel is less so.¹⁴

PRODUCTION OF COAL, PIG IRON AND CRUDE STEEL

(monthly averages in thousands of metric tons)

Year	Coal *	Pig iron †	Crude steel †
1913.....	15,842	1,388	1,412
1914.....	13,449	1,042	1,127
1915.....	12,239	841	967
1916.....	13,264	940	1,133
1917.....	13,979	963	1,148
1918.....	13,376	883	1,176
1919.....	9,723	471	561
1920.....	10,950	463	643
1921.....	11,351	625	750

* From 1919, excluding Alsace-Lorraine and from 1920, excluding Saar and Palatinate.

† Excluding Luxemburg; including Alsace-Lorraine from 1913 to October, 1918.

Of the three commodities named, the output of coal is most nearly up to the pre-war level. In estimating its volume, allowance must be made for the loss of Alsace-Lorraine, the Saar and the Palatinate. In judging of its importance as compared with German needs, it must be remembered that Germany is under the

¹³ Federal Reserve Bulletin, July, 1922, p. 815.

¹⁴ League of Nations, *Monthly Bulletin of Statistics*, June, 1922, pp. 7 and 8.

obligation to deliver 2,000,000 tons per month to the Reparation Commission, the actual amount of the deliveries being considerably less. There are reductions in German needs due to losses of territorial area, and there are probably some increases due to altered industrial conditions within the country.

The net result may be indicated by noting that in 1913 Germany imported 11,400,000 tons of coal or somewhat less than one million tons per month. Today, with a reduced area she is importing more. The amount imported from Great Britain has been increasing for several months and for August, 1922, is estimated at 1,500,000 tons.¹⁵ This large amount seems to be due in part to a reduced production in the Ruhr, where at the present time there seems to be hope for a larger output.

The pig iron output of 1921 was less than half that of 1913 and, if the production of Alsace-Lorraine, which averages 93,000 tons per month, were added, it would be only a little more than half. The output of crude steel is only a little more than one-half that of 1913 and the Alsace-Lorraine output of 72,000 tons would make the total in 1921 only 822,000 tons per month or less than 59 per cent of that in 1913.

THE VOLUME OF FOREIGN TRADE

Turning from this discussion of internal productivity to Germany's foreign trade as a whole, what do we discover? Here, too, statements are hard to make with precision. Because of the widely fluctuating quotations for the mark, trade statistics are hard to interpret.

We may state the figures first in marks without allowance for depreci-

¹⁵ Commerce Reports, September 18, 1922, p. 768.

GERMANY'S IMPORTS AND EXPORTS
(in millions of paper marks)

YEAR	IMPORTS	EXPORTS	BALANCE OF EXPORTS (+) OR OF IMPORTS (-)
1913.....	890	841	- 49
1919.....	2,698	838	- 1,860
1920*.....	5,696	4,579	- 1,117
1921†.....	9,910	8,295	- 1,615
1922			
January.....	12,641	14,394	+ 1,753
February.....	12,001	14,482	+ 2,481
March.....	22,919	21,285	- 1,634
April.....	28,266	22,955	- 5,311
May.....	32,422	27,076	- 5,336
June.....	34,364	30,232	- 4,132
July.....	45,738	35,707	-10,031
August.....	56,500	60,300	+ 3,800

* Average age for first six months only. Figures for the other months not available.

† Average for eight months only. Figures for first four months not available.

ation, giving monthly averages in millions of marks.¹⁸ (See table above).

With the exception of December, 1921, and January, February, and August, 1922, Germany's trade balance has been unfavorable. However, it

seems large as stated in paper marks and must be corrected to allow for depreciation. Stated in gold marks by allowing for this depreciation the figures are as follows for the eight months of 1921 and for 1922:

GERMANY'S IMPORTS AND EXPORTS
(in millions of gold marks)

	IMPORTS	EXPORTS	BALANCE OF EXPORTS (+) OR OF IMPORTS (-)
1913.....	890	841	- 49
1921			
May.....	365	303	- 62
June.....	387	328	- 59
July.....	408	333	- 75
August.....	460	327	-133
September.....	443	312	-131
October.....	407	285	-122
November.....	198	192	- 6
December.....	286	302	+ 16
1922			
January.....	271	309	+ 38
February.....	240	289	+ 49
March.....	348	323	- 25
April.....	409	332	- 77
May.....	463	387	- 76
June.....	481	423	- 58
Monthly average in 1922.....	368	344	- 24
Per cent of 1922 to 1913.....	41	41	.....

¹⁸ Figures as given in *Federal Reserve Bulletin*, August, 1922, p. 973, except for 1919 and the first five months of 1920, which are from *Documents of the International Financial Conference at Brussels, 1920*, Paper No. V, International Trade, p. 29.

It will be helpful also to present the monthly averages of foreign trade in thousands of metric tons.

GERMANY'S IMPORTS AND EXPORTS
(in thousands of metric tons)

Year	Imports	Exports
1913.....	6,073	6,141
1920.....	1,570	1,651
1921 *.....	2,194	1,715
1922		
January.....	2,309	2,027
February.....	1,475	1,747
March.....	2,645	2,153
April.....	2,889	2,760
May.....	3,810	2,093
June.....	4,030	1,880
July.....	4,790	1,630
Monthly average in seven months of 1922.....	3,135	2,041
Per cent of 1922 (seven months) to 1913.....	51	33

* Eight months only.

The import figures we have given do not include philanthropic gifts nor do the exports include deliveries on reparations account.

If one examines the first set of figures which give the foreign trade in paper marks, he gains the impression of a very great increase, of a flood of German goods making their way into the world's markets and disastrously competing with the products of other countries. It is necessary to keep constantly in mind, when one reads the reports of German trade, that it is expressed in paper marks and should be converted to gold marks before conclusions are drawn.

Where this is done, as shown above, by multiplying the figure for each month by the percentage of parity of the German mark during that month in terms of the American dollar, the result is startling. Instead of the volume of trade being nearly four times as great as before the war (the impression conveyed by the first figures) the rela-

tionship is just reversed. Imports for the first six months of 1922 averaged only 368,000,000 gold marks or only 41 per cent of the average for 1913. Exports during the same period averaged 344,000,000 gold marks, or only 41 per cent of the average for 1913. Tonnage statistics show the same situation. Imports into Germany averaged 6,073,000 tons per month in 1913 but only 3,135,000 tons per month during the first seven months of 1922—or 51 per cent of the 1913 figures. Exports in 1913 averaged 6,141,000 tons and in 1922 only 2,041,000 tons or 33 per cent of the 1913 figure.

Such a situation is worse than serious. If true, it is appalling. It means an immediate shortage of food and raw materials, a shortage that goes far to explain the reports of unrest and rioting in German cities. Even worse, it is gradually weakening German productive power by cutting off nourishment and the raw materials needed by the factories.

Next to attract attention is the fact that Germany still has an import balance. For the eight months of 1921, this import balance averaged 71,000,000 gold marks, compared with only 49,000,000 gold marks in 1913. Unless this is offset in some way by other items, Germany is not making external payments but is going farther and farther into debt. If she is settling obligations in one direction, they are being increased still more elsewhere.

Are there any invisible items? Probably so, but their size cannot be very large. Her merchant marine of 5,098,000 tons in pre-war days earned, as estimated above, about 500,000,000 gold marks. Her present fleet of 1,783,000 tons (on June 30, 1922,) is 35 per cent of the pre-war size and with ocean freight rates at their present level can presumably earn no more (and perhaps less) than 35 per cent of

500,000,000 marks or 175,000,000 marks per year which is less than 15,000,000 gold marks per month. This cannot offset the average import balance of 71,000,000 gold marks per month in 1921 and 24,000,000 gold marks in 1922.

The other invisible item of importance is that of interest on foreign investments. The amount of this cannot be estimated today with any accuracy. The most generous estimate from any responsible person was given to the writer by one of the best known and ablest of the British bankers as £500,000,000 which is about 10,000,000,000 gold marks or less than one-half of the estimated amount in pre-war days. At 5 per cent this would yield in interest return less than 42,000,000 gold marks per month, still leaving a large import balance to be provided for; Sir Robert Horne, Chancellor of the British Exchequer in the House of Commons on August 3, 1922, estimated these foreign holdings, exclusive of working capital, at only £200,000,000. This would give an interest yield of less than 17,000,000 gold marks per month.

If these trade statistics are accurate or even approximately so, Germany was getting farther and farther behind in 1921, and is just about balancing accounts in 1922. But are they accurate? Mr. C. E. Herring, United States Commercial Attaché at Berlin, after a study of the statistics of the last six months of 1921,¹⁷ concludes that the figures cannot be considered entirely accurate. He states his belief that "the Statistisches Reichsamt compiles accurately the material which it receives but that a large amount of undervaluation of exports exists, either by

double invoicing or otherwise." There is probably inadequate checking up of the shipments at Hamburg, the chief outlet for German exports. Export prices have probably not been held down but, since the London ultimatum bases a part of the reparations payment on the value of German exports, the German exporter has a strong inducement to conceal his actual sales' price.

Mr. Herring's general conclusion should be quoted in full:

The net result of these investigations is the discovery that quantities are somewhat understated, but that in any case they are very much smaller than before the war and indicate an abnormal relation between German production and German exports. There is a more serious discrepancy in the value of figures of German exports which may mean that the visible balance of trade, if not actually favorable during 1921, has been less adverse than the figures would indicate. These inaccuracies, however, do not vitally affect the conclusion that during the last six months of 1921, the decline in the world's purchasing power, rather than more formidable German competition, is the explanation of the depression of the export trade of other great industrial countries, and that German industry will, apparently, have to export a considerably larger proportion of its output than during the past year if present production and unemployment are to be maintained.

UNEMPLOYMENT IN GERMANY

The last sentence quoted from Mr. Herring's report confirms the frequently heard statement that there is great activity and little unemployment in Germany. The following statistics present the available data on this question.¹⁸

There are no inclusive unemploy-

¹⁷ "Analysis of German Foreign Trade Statistics," United States Department of Commerce, *Trade Information Bulletin*, No. 40, June 26, 1922, p. 17.

¹⁸ *Federal Reserve Bulletin*, November, 1921, and August, 1922. For April to July, 1922, from *Commerce Reports*, *passim*.

ment figures and the statistics in the table below include only those receiving state aid.

These figures are remarkable for the sudden decline, beginning in May, 1922, and show that there is as yet an abundance of work in Germany.

Since there is great industrial activity and little unemployment, what is the explanation of the small volume of exports and what basis, if any, is there for the frequent reports of economic distress in Germany?

activity in Germany has been devoted to repairing her economic equipment that deteriorated seriously during the war. To the casual observer traveling in Germany today, the restoration appears to be very considerable. Fields seem well tilled; factories operating effectively and railroads in good condition. The writer inquired specifically regarding the general status of the different lines of economic activity, some of which cannot be reflected in statistics, and found it generally con-

UNEMPLOYMENT IN GERMANY

NUMBER OF UNEMPLOYED PERSONS RECEIVING STATE AID

1920 (monthly average).....	366,241	1921	
1921		October.....	186,000
January.....	410,238	November.....	150,000
February.....	423,164	December.....	149,000
March.....	426,600	1922	
April.....	413,321	January.....	165,000
May.....	394,262	February.....	200,000
June.....	357,352	March.....	209,000
July.....	314,319	April.....	171,000
August.....	268,508	May.....	51,417
September.....	232,369	June.....	39,964
		July.....	36,350
		August.....	34,967
		September.....	43,217

It must not be forgotten that although the exports are probably underestimated, they are still much less than pre-war and there is probably still a considerable import balance. Also there have not been included exports of coal, etc., on reparation account, and among the invisible items are large payments in cash to the Reparation Commission. Also there are many reasons why German writers and German sympathizers should exaggerate the economic difficulties of Germany with a view to securing a modification of the reparations demands.

Nevertheless there are facts that support the contentions referred to. A considerable part of the industrial

ceded that great progress had been made in restoring the material equipment of the country. A large amount of capital and labor has been utilized in this way. In fact the French allege very bitterly that there has been lavish expenditure, some of it wasteful and much of it for additions and betterments, funds being used that should and could have been devoted to reparations.¹⁹ This the Germans deny and it is almost impossible to ascertain the truth. The writer, after numerous inquiries, concluded that there is some

¹⁹ For a forceful presentation of this see *La France à Gènes* by Celtus, especially Chapter V. This volume is a particularly clear and vigorous presentation of the French viewpoint toward conditions in Europe today.

basis for the charge but far less than the French claim.

Another influence, whose importance also is hard to measure, is the sabotage by labor. Plenty of employment does not mean a large product. Slackening of effort by labor has been charged in all countries since the war but the issue has been complicated by the animus of many employers towards union labor and accurate conclusions are difficult.²⁰

Reference should again be made to the fact that the volume of exports is probably much minimized.

Nevertheless there is much distress. Much of the activity is probably of an ephemeral sort and cannot be maintained. Its basis is not sound and is to an important extent dependent on the inflation of the currency. Inflation is always a stimulus to activity, in the long run a harmful one, and that in Germany today is no exception.

It operates as follows. Inflation causes a decline in the value of the mark in the currency of other countries and gives for the time being an advantage to the German manufacturer and exporter who can undersell their competitors in other countries. But this is a short-lived advantage. Many raw materials must be purchased from abroad and paid for in foreign money at very high prices in terms of the depreciated mark. This raises production costs and is soon followed by higher prices for such of the products as are sold within Germany. Also imported foodstuffs cost more and more in marks, which means a higher cost of

living and frequent demands from German workers for higher pay.²¹

Soon the level of internal prices is driven up to a point where costs of production offset the temporary advantage due to the depreciation of the mark. High prices for imported goods and weakened credit soon drive many manufacturers out of business unless a further fall of the mark gives them another temporary advantage.

In June last, thoughtful observers in Germany agreed that an economic crisis of gigantic proportions could not long be postponed if the value of the mark remained steady at its then level of from 300 to 325 to the dollar. Since that time the mark has again fallen but so wildly that the irregularity and uncertainty have become an added complication. Many fear a crisis at almost any time.

GERMAN FINANCES

This brings us to a consideration of German finances which may be examined as we have those of Italy and France, by noticing first corporate, then bank and finally governmental financing. As a preliminary and also as an explanation of what follows it is important to notice first the rise in wholesale prices as shown by the *Franfurter Zeitung* index number (Prices of July, 1914, equal 100).²²

²¹ One day in June last, when the writer was going through a German factory with the manager, the employees presented a demand for a 40 per cent increase in pay to date back to May 1. The manager explained that the demand was not unfair and would be allowed to the extent of about 35 per cent. He added that the demand had been anticipated and had been allowed for in the company's cost sheets. This is not an unusual incident but is becoming more and more common.

²² The following index numbers are as given by C. E. Herring in *Commerce Reports*, August 21, 1922, p. 509, and September 18, 1922, p. 767.

²⁰ That this charge is not true in Germany seems to find support in statistics published a few months ago by the *Franfurter Zeitung* from which the conclusion is drawn that in piece work the intensity of labor is at least as high as before the war. *The Economist*, (London), May 13, 1922, p. 904.

WHOLESALE PRICES IN GERMANY

July, 1914.....	100
1922	
January 1.....	4,238
February 1.....	4,612
March 1.....	5,427
April 1.....	6,722
May 1.....	7,379
June 1.....	7,841
July 1.....	9,140
August 1.....	13,935
September 1.....	28,919

The government cost of living index, comprising food, heat, light, and rent and based on 100 for 1913 and 1914, shows the following:

COST OF LIVING IN GERMANY

July, 1921.....	1,124
October.....	1,300
1922	
January.....	1,825
February.....	2,209
March.....	2,639
April.....	3,175
May.....	3,462
June.....	3,779
July.....	4,990
August.....	7,029
September.....	11,376

For the month of July, 1922, Dr. Kuczynski's estimate of the weekly minimum cost of existence for a family of four averaged 1,763 marks during July, 1922, or 61 times the pre-war cost, showing the following increases over 1914: food, 71 times; rent, $2\frac{1}{2}$ times; heat, 72 times; light, 42 times; clothing, 89 times.

These price figures show, first, an extremely high level over pre-war and, second, a very rapid increase since last spring, an increase that is gaining in momentum. Internal prices show a tendency to respond very promptly to a fall in the external value of the mark. The effect of this on particular groups in Germany is impossible to picture. Professor Werner Sombart, of the University of Berlin, prepared, some

months ago, an especially valuable analysis,²³ comparing the situation by the end of 1921 with that prior to the war and reached the following conclusions:

1. The position of no class has improved.
2. The standard of living of a very small upper class and of the lowest class are the same as before.
3. The standard of the remaining classes has fallen.

What a similar analysis would show for today can only be guessed. Wholesale prices on September 1, 1922, were nearly seven times those of the preceding January and 289 times pre-war. The cost of living index (which is for retail prices and is held in check somewhat by laws against rent-gouging and by a bread-subsidy) was in September, 1922, 113 times pre-war and nearly seven times that of January 1. What the situation will be when these lines are published in November, 1922, the writer dare not even suggest.

It is often remarked that high prices make little or no difference in a country since all prices and wages rise leaving everybody as well off as before. This is false since all prices do not rise with equal rapidity and since ordinarily the rise in wages lags behind the rise in prices.

SOME EFFECTS OF THE RISE IN PRICES

This rise in prices has had many effects on the economic and social life of Germany. Into the broader effects we shall not attempt to go, except to observe that they force violent readjustments upon nearly all groups with a strain whose consequences vary from the mild and unimportant ones to others which shake the very founda-

²³ *The New Republic*, May 24, 1922, p. 362. This article is strongly recommended to those who still believe that the Germans are a highly prosperous people.

tions of our social life.²⁴ A few of the effects that are of the most immediate importance to America must however be referred to.

The fall in the value of the mark has operated to encourage the exportation of German goods. Although the total volume of these exports has been relatively small, as shown by the figures already given, there has been some "valuta dumping," as it is called—the sale of goods at a very low price in foreign currency, although at a fairly high price in marks, high enough to yield the seller a considerable profit. This dumping may be a disadvantage to the country receiving the goods where the price at which they are sold may be far below the cost of producing similar goods. From the German standpoint there may also be difficulties. One is the loss to Germany if the goods are sold at an unnecessarily low price and the other is the possibility of an excessive export of goods, e.g., newsprint paper, of which there may be a domestic shortage. Also the irritation in other countries against Germany, because of this competition, might make it wise for the German Government to exercise control over exports.

For all these reasons, an attempt has been made to exercise control over export prices which has been largely in the hands of the foreign-trade committees (*Aussenhandelsstellen*) quasi-official bodies representing the various industries. It has been hard for them to exercise adequate supervision at a time when there has been such a violent fluctuation in the value of the mark and trade has become very much disorganized.

One of the most serious difficulties faced by the German manufacturer (or exporter) is the impossibility of

knowing his costs for any considerable time in advance of delivery. A contract to deliver a consignment of goods at a specified price two months ahead becomes hard to fulfill if in the interval costs have so increased as to destroy all the anticipated profit. As a result, one of two things occurs. Either the sales are made for cash and only for immediate delivery, or when the time for delivery arrives, the seller contends that changed conditions, especially higher costs of production, make necessary a higher price than the one agreed upon.

Because of these uncertainties, contracts of sale often have inserted in them a clause known as the *Preisfrei-bleibend* clause which definitely permits deviations from the contract as a result of changed conditions between the signing of the contract and the date of performance. The courts of Germany in upholding this clause have for some time accepted increased wages, freight rates and other production costs as a sufficient cause for changing contract terms.

A recent decision of the Federal Supreme Court at Leipzig has added further complexities. A certain defendant withdrew from an agreement to sell his business for a fixed price at a future date. The court ruled that an agreement need not be carried out when the parties thereto mistakenly assume at the time of contracting that there would at the time of carrying out the contract be a fair exchange of values. The court even emphasized the fact that currency depreciation is sufficient cause to make the exchange of values sufficiently unfair to warrant the repudiation of the contract. The London *Economist* comments:²⁵ "The new decision practically makes all purchase and delivery contracts unenforceable."

²⁴ For a particularly clear and able presentation, see J. M. Keynes "The Consequences to Society of Changes in the Value of Money," *Manchester Guardian Commercial, Supplement*, Section Five, July 27, 1922, p. 321.

²⁵ The *Economist* (London), June 17, 1922, 7, 1250. See also *Commerce Reports*, August p, 1922, p. 406.

The result of such conditions is naturally to discourage time contracts—a change whose effects on business are almost incalculable and can be fully appreciated only by those who realize the extent to which contracts for future delivery are the usual business arrangement. Large well-established German houses are slow to take advantage of this legal situation, but conditions as a whole are extremely trying and detrimental to the conduct of business.

CAPITAL ISSUES

Since everything in Germany is priced at a higher level than before, it is to be expected that German corporations would be compelled, when securing new capital, to sell securities of a correspondingly higher par value. How this has developed during recent years is shown by the amount of capital increases in recent years.²⁶

CAPITAL ISSUES (INCREASES OF CAPITAL)
(in millions of marks)

1911.....	820	1917.....	984
1912.....	994	1918.....	1,043
1913.....	635	1919.....	1,654
1914.....	874	1920.....	7,520
1915.....	314	1921.....	19,229
1916.....	360		

For the years 1920 and 1921 more details may be given.²⁷

TOTAL CAPITAL ISSUES (1920-21)
(in millions of marks)

	NEW COMPANIES		INCREASES OF CAPITAL	TOTALS
	Shares	At Fixed Rates of Interest		
1920.....	1,159	2,573	7,520	11,252
1921.....	6,527	6,100	19,230	31,857
Total.....	7,686	8,673	26,750	43,109

Finally, it is worth while to give the total issues of 1921 and 1922 (through July) in the following form:²⁸

1921.....	January-June	11,599,000,000
	July-December	20,258,000,000
1922.....	January-June	24,253,000,000
	July	952,000,000

The demand for increases of capital amounted to 994,000,000 marks in 1912 and fell to 314,000,000 marks in 1915. Since then it has risen but even as late as 1918 it was only a little in excess of 1912. In the last three years named the increase has been rapid and with a greatly enhanced momentum, becoming 1,654 million marks in 1919, 7,520 millions in 1920 and 19,229 millions in 1921. Total issues, including those of new companies, were 11,252,000,000 marks in 1920 and 31,857,000,000 marks in 1921. By six-months periods beginning in January, 1921, the amounts have been 11,599 millions, 20,258 millions and 24,253 million marks.

In July and August, 1922, a continuance of the issues at the rate for the earlier months of the year would have brought out over 2,000,000,000 marks in each of the two months. Instead, there was a decline to 952,000,000 marks in July, followed by 2,210,300,000 marks in August. There is as yet

²⁶ J. W. F. Thelwall, *op cit.*, p. 13 (compiled from the *Frankfurter Zeitung* and the *Industrie und Handelszeitung*).

²⁷ *Ibid.*, p. 12.

²⁸ *Federal Reserve Bulletin*, August, 1922, p. 948.

only a little slackening in the pace. In spite of the large inflation of the currency, cash has become very scarce in Germany and interest rates are high. Corporations are said to be finding it increasingly difficult to get funds, because capital is actually very scarce. Whether the slight retardation in July and August will continue, it is too soon to say. It may be pointed out, however, that capital issues in the first half of 1922, although more than double those of the same period in 1921, were probably of less value to the issuing corporations since prices had more than doubled in the interval.

In our chapters on Italy and France we commented on the impossibility of the corporations of those countries ever keeping the promises expressed in their obligations if prices go back to the old level. In Germany it is so inconceivable as to be fantastic. If prices should start to fall, the failures would begin. In fact, if prices should even be steadied the troubles would start. Inability to meet outstanding obligations would soon become apparent and bankruptcies would follow. In the United States we avoided many of them by organizing creditors' committees. In other countries, failures have been postponed and some of them prevented by the declaration of moratoria. That such devices could prove effective in Germany seems inconceivable.

The number of failures in recent years is shown by the following figures:²⁹

BANKRUPTCIES IN GERMANY

		1922	
		(by months)	
1913.	9,725	January	140
1914.	7,739	February	123
1915.	4,594	March	151
1916.	2,279	April	107
1917.	1,240	May	95
1918.	807	June	91
1919.	1,015		
1920.	1,324		
1921.	2,975		

²⁹ Taken from the *Frankfurter Zeitung* as quoted by J. F. W. Thelwall *op. cit.*, p. 14. For 1922,

The small number of failures per annum from 1915 to date immediately attracts attention. Since 1918 there has been an increase but as yet the numbers are far below pre-war and for 1922 are as yet much below the numbers for 1921, when they averaged nearly 250 per month. That there is a large accumulation of overdue failures is probable. When inflation is checked, they presumably cannot be held back and will be accompanied by the bankruptcy of many well-managed concerns, which have assumed in a time of rising prices liabilities they cannot pay if prices are stabilized or fall.

THE BANKS OF GERMANY

We next give a consolidated financial statement of the principal German banks, the ones included being the Deutsche Bank, the Disconto-Gesellschaft, the Dresdner Bank, the Damstädter Bank, the National Bank and the Commerz und Privat Bank. Only the leading items are shown and but few comments on them are needed. The banks of Germany were among the first of its institutions to feel the effects of inflation and their balance sheets clearly reveal it.

FINANCIAL STATEMENT OF PRINCIPAL GERMAN BANKS, DECEMBER 31, 1920 AND 1921

(in millions of marks)

	Assets	
	1920	1921
Cash and with Reichsbank	3,972	6,591
Other bank deposits	4,077	13,707
Bills and treasury notes	30,031	44,485
Other quick assets	3,390	10,689
Total quick assets	41,470	75,472
Non-liquid assets	12,775	29,682

see League of Nations, *Monthly Bulletin of Statistics*, July, 1922, p. 28.

<i>Liabilities</i>		
Capital stock.....	1,540	2,330
Surplus.....	725	1,024
Deposits, etc.....	54,987	104,919
Percentage of quick assets to deposits.....	75	72
Percentage capital and sur- plus to deposits.....	4.	3.7
Percentage of "Bills and treasury notes" to total quick assets.....	72	58

Three features call for attention, two of which are very serious, the other encouraging. First may be mentioned the very dangerous relation of the quick assets to the demand liabilities—the deposits. Safety in banking, as in any other business, calls for a generous excess of quick assets over demand liabilities. In the chapter on France we emphasized the weak situation when demand liabilities were as much as 94 per cent of the liquid assets. In Germany, however, the demand liabilities are larger, exceeding the liquid assets in 1920 by 32 per cent, the latter being only 75 per cent of the former. In 1921 the quick assets were only 72 per cent of the demand liabilities. With such figures before us it is not necessary to dwell on the statement that the banks are not in a liquid condition. It should be emphasized, too, that these figures assume that all of the "liquid" assets are really liquid. But in each year the most important item among the quick assets is "Bills and treasury notes," i.e., promises of the German Government, and their liquidity will be better understood after our examination of the government's finances.

The second feature for mention is the relation between the capital (and surplus) and the deposits. A proper relationship cannot perhaps be stated with entire accuracy but in the United States a ratio of 10 per cent is often

suggested as proper. The German banks had a ratio of 4.1 per cent in 1920 and only 3.7 per cent in 1921. Judged by the standards of sound banking in normal times they are in a most precarious condition. The margin of safety would be dangerously small even if the assets were satisfactory, but they are not.

A third feature and a more encouraging one is the shrinkage in the percentage of "Bills and treasury notes" to total quick assets. This declined from 72 per cent in 1920 to 58 per cent in 1921. The banks are said to be very definitely shifting their emphasis to commercial banking and are to a slight extent strengthening their position. Also, there may be noticed the growth in "Other bank deposits" which is probably an increase in their accounts with banks abroad.

A word of caution should be spoken in connection with the apparently great increase in the deposits in 1921 over 1920. Such increases in a period of rapidly rising prices are to be expected and are not indicative of a growth in the real wealth controlled by the banks. Thus commercial deposits in Germany in 1920 were 870 per cent of those in 1913 but, when this is corrected to allow for the rise in prices, they were only 60 per cent, or much less in 1920 than in 1913.³⁰

THE REICHSBANK

In the chapter on Italy, reference has been made to the position of the three great banks of issue between the needs of business on the one side and of the government on the other. The same comment has been made about the Bank of France and may now be repeated for the Bank of Germany (The Reichsbank). Because of the very close connection between the

³⁰ League of Nations, *Memorandum on Currency*, p. 12.

Reichsbank and the government, it is difficult to know which to examine first but we shall begin with the bank. The figures are presented with a repetition of the reminder that changes are occurring so rapidly that they will quickly be out of date.

The following figures for the Reichsbank show several of the most important items from its statement on December 31, for 1913, 1919 and 1921 respectively.³¹

During the war this was due to the deliberate policy of the German Government not to meet the costs of the war from taxation but from loans. After the war it is said that plans were prepared for a thoroughgoing adjustment of fiscal problems but these could not be carried out. Accordingly the government has relied more and more on the Reichsbank for help, the advances being secured chiefly in exchange for Treasury Bills.

THE REICHSBANK—LEADING ITEMS IN BALANCE SHEET DECEMBER 31
(in millions of marks)

	1913	1919	1921
Gold reserve.....	1,170	1,089	995
Loans and advances to the government.....	396	42,098	132,339
Notes in circulation.....	2,593	35,699	113,639
Deposits.....	793	17,354	32,905

Note issues increased from 2,593,000,000 marks in 1913 to 113,639,000,000 marks in 1921, deposits increasing from 793,000,000 to 32,905,000,000 marks in the same period. The chief reason for this enormous growth is to be found in the item "Loans and advances to the Government" which has expanded from 396,000,000 to 132,330,000,000 marks.

The following comparative figures for the Reichsbank are enlightening.³² (See table below).

These figures reveal plainly what has occurred. The amount of gold held by the Reichsbank was \$279,000,000 in 1913 but increased to \$539,000,000 in 1918. It will be remembered that at the outbreak of war a large sum was transferred to the Reichsbank from the

THE REICHSBANK—CERTAIN COMPARISONS FOR 1913, 1918 AND 1921

	END OF		
	1913	1918	1921
Metallic reserve as percentage of total liabilities.....	39	6	0.7
Notes in circulation as percentage of total liabilities.....	70	59	76.0
Gold cover of notes in circulation (in percentages).....	45	10	0.9
Actual amount of gold reserves (in millions of dollars).....	\$279	\$539	\$237
Government securities, loans and advances as percentages of total assets.....	19	..	99

³¹ League of Nations, *Memorandum on Central Banks*, p. 40.

³² League of Nations *Memorandum on Central Banks*, *passim*.

"war chest" at Spandau and that every effort was made to collect gold from the German people during the war. Since the war ended Germany has been compelled to surrender considerable amounts of gold, partly to the Reparation Commission and partly on the market in an attempt to support German exchange. At the end of 1921 the amount of gold held was not very much smaller than in 1913.

The difficulty is the growth of the liabilities, which have become so great that in 1921 the metallic reserve was only $\frac{1}{10}$ of 1 per cent of the total liabilities. Alarming as this is from a banking standpoint, it is made many times worse by the fact that the assets are now almost entirely government promises, the percentage of total assets in this form being 99 in 1921.

The commercial banks, as we have noticed above, are in a very weak situation. That the Reichsbank is in no position to help them is amply demonstrated by the facts just cited. Any aid that it could give can be nothing more than a further expansion of its note issues, i.e., inflation. Aid of this kind is, of course, possible, perhaps, for a considerable time. The consequences, however, would be serious, an already alarming condition in Germany being made worse by a still higher price level, further depreciation of the mark in foreign countries, weakened credit, etc.

Nor is the situation growing better in 1922. Instead it is becoming very rapidly worse. Paper money in Germany is of two kinds, the note issues of the Reichsbank and the Loan Bureau Notes (*Darlehnskassenscheine*). The latter decreased during 1921 but are now increasing. The Reichsbank issues have been steadily growing in amount. The totals of the two for certain dates are (in marks):

PAPER MONEY IN GERMANY

End of December, 1920	80,800,000,000
" " " 1921	121,900,000,000
" " January, 1922	123,400,000,000
" " February, 1922	128,000,000,000
" " March, 1922	139,400,000,000
" " April, 1922	149,600,000,000
" " May, 1922	161,400,000,000
" " June, 1922	179,600,000,000
" " July, 1922	202,000,000,000
" " August, 1922	251,500,000,000
" " September, 1922	330,000,000,000
" " October 20, 1922	374,000,000,000

If it were possible for the world to be moved at all by signs of financial chaos, such figures would be considered as evidence of an impending breakdown. As it is, we are so accustomed to similar and even worse developments, as, for example, in Russia and Austria, that the figures make very little impression on us. And our attitude is not surprising. Financial monstrosities are now familiar. Besides, they are in themselves largely symptoms—not causes—and their relationship to production and trade is not always clear.

Let us then emphasize one or two points. One is that this flood of paper money is not only continuing but is gaining in momentum. The increase in 1921 was 41,000,000,000 marks. In the first six months of 1922 it was 57,500,000,000 marks. In September, alone, the increase was nearly 79,000,000,000 marks, or nearly as much as from January to July of the same year. The momentum is rapidly growing. Early in September the printing presses were turning out about 2,600,000,000 marks per day with the expectation that this would increase to 4,000,000,000 marks per day later in the month. The statement of the Reichsbank for September 15 shows an increase of 44,000,000,000 marks in the note issues of the bank during the first half of the month. This does

not include the *Darlehnskassenscheine*. The total increase from September 1 to October 20 was 123,000,000,000 marks.

Second is to be noticed the fact that there is no practicable plan yet in sight for stopping the movement. Whatever may be true in November when this volume of *The Annals* is published, it is correct in October to say that nothing has recently been done (or at least made public) except to demand the surrender of another one hundred million marks of gold and perhaps also some securities and to demand that the Reichsbank endorse certain obligations of the government which are to be delivered in lieu of reparations payments during the remainder of this year. No matter how wise such a demand may be the effect of such a proposal on the Reichsbank is clear. Liabilities are being enlarged and still more note issues will probably follow. At the same time the gold reserve, now only about one-half of one per cent of the liabilities, would be made even smaller.

In the face of all this, there is actually a money shortage. Even in June last or earlier, it was becoming difficult to get cash in the denominations desired. Now the newspaper despatches tell every day of the difficulty of getting any cash at all. The commercial banks have been charging high rates for loans which makes borrowing very expensive and seriously increases costs of doing business. The Reichsbank, which had for years held its own rediscount rate at 5 per cent, raised it to 6 per cent on July 28, to 7 per cent on August 28, and to 8 per cent on September 21.³³

Another way in which the growing tension is to be observed is in the growth of private discounts at the Reichsbank, thus relieving the com-

³³ This is the highest Reichsbank discount rate ever known.

mercial banks but adding to the strain on the central institutions. These were 922,000,000 marks last December. On July 31, 1922, they were 8,122,000,000 marks and on September 30, were 50,000,000,000 marks.³⁴

This strain has made it harder and harder for the Reichsbank to continue taking the Treasury Bills. The Treasury Bills have been taken in part by the Reichsbank and in part by the market but in April and May of this year the general market did not increase its holdings but decreased them. The Reichsbank in those two months added to its own holdings more than the amount of the new issues. With the increase in the discount rate it was hoped that more would be absorbed by the market, but current despatches indicate that tendencies in this direction are only temporary.

GOVERNMENT FINANCES

What chance is there that the financial condition of the government will improve? In 1918 government expenditures were 57,850,000,000 marks of which only 7,392,000,000 marks were met from revenues, the balance of 50,458,000,000 marks being raised by loans. The estimates for the year ending March 31, 1923, as they were prepared at the end of January, 1922, called for an expenditure of 100,892,300,000 marks, exclusive of expenditures arising from the execution of the Peace Treaty. Including those expenditures, the totals were 288,424,000,000 marks, of which it was estimated that 183,366,000,000 marks would have to be borrowed along with an extra 12,500,000,000 marks for temporary increase of working capital

³⁴ It is said (*The New York Times*, September 22, 1922) that since July 28 the total of discounted loans and Treasury Bills held increased from 196,000,000,000 marks to nearly 300,000,000,000 marks.

or a total of 195,866,000,000 marks of loans.

In January the mark was quoted in New York at about 2 per cent of parity or approximately one-half of a cent. It has since then fallen to about one-fortieth of a cent and prices in Germany are about $3\frac{1}{2}$ times what they were in January. What a budget estimate would now show no one can tell and such an estimate would hardly be worth making until conditions become more stable.

On September 30, 1921, the total debt was as follows:

THE GOVERNMENT DEBT, SEPTEMBER 30, 1921

	Marks
Funded debt.....	73,495,200,000
Floating debt.....	228,708,500,000
Total.....	302,203,700,000

In addition there is the liability on reparations account which was set on May 5, 1921, at 132,000,000,000 gold marks. The 302 billions of other debt is in paper marks. What the total should be is almost any one's guess. The whole reparations controversy is so beclouded by alterations and uncertainties and by fluctuations in the value of the mark that totals of any significance are impossible.

There is not space here to describe the various attempts to meet the problem, by a capital levy, by a forced loan, by reductions in expenditures, etc. The government's position is politically weak and it lacks the power to enforce such measures strictly. Even were it strong, a plan in June for a forced loan of 60,000,000,000 paper marks (at that time equal to about 1,000,000,000 gold marks) becomes entirely inadequate when passed a few weeks later because of further mark depreciations. What

these 60,000,000,000 paper marks will be worth in gold "when, as and if" they are collected no one knows. In the meantime the floating debt which was 228,708,500,000 marks on September 30, 1921, was 312,700,000,000 on August 20, 1922. By August 31 it was 331,300,000,000 and on September 30 is said to have been 528,000,000,000 marks.

We noticed that France cannot appreciably cut down her expenditures without an open or disguised default. Germany's position is similar. In the budget for 1923, as prepared last January, this is clearly shown. This budget (aside from claims under the Peace Treaty) called for an expenditure of 100,892,300,000 marks. Of this sum 12.4 per cent was for pensions, and 27.7 per cent for public debt charges—a total of 42 per cent for these two items alone. Including Peace Treaty demands, the total of pensions, debt charges and obligations under the treaty make up 79.7 per cent of the budget of 288,424,000,000 marks.

CONCLUSIONS

What conclusions may be drawn? It is difficult to discuss the question without reference to reparations which will be considered in another chapter but, in so far as it is possible, we shall keep the two distinct.

Germany is a country of tremendous strength, both in natural resources and in human power. Under certain conditions she could have recovered rapidly from the war and is yet capable of doing so. At present, however, the situation is, on the whole, far less favorable than that of three years ago.

This is in spite of many favorable signs. Although this year's crops are reported to be very poor and heavy imports of food are needed, agriculture is gaining year by year. The railways,

factories and shipyards are better equipped.

Nevertheless, there is a decline. German organization before the war called for a surplus of merchandise imports, certain invisible items making up the difference. The war weakened German organization more than that of other countries in some particulars and less in others. The peace settlement lessened the home area and took away the ships, the colonies and many foreign investments. Location of the remaining investments and of those made in post-war days is just as hard for the German Government as for any other. They are evidenced by securities which can be very readily concealed and every government has failed in its attempts to tax such property heavily.

Upon a country thus situated have come heavy demands for external payment. With adequate time for a readjustment of economic organization, very large sums could undoubtedly have been paid. Actually they have not been. An examination of Germany's trade figures shows she has been regularly running behind. In so far as she is making external payments, she is either borrowing in some form to do it, or is disastrously weakening her own internal economic structure. Her import balance is now growing larger month by month and there is no reason for believing that invisible items are sufficient to offset it.

Germany is suffering somewhat from the economic crisis but her real difficulties are still ahead. Unless all previous experiences are valueless she must sooner or later go through a period of unemployment and suffering that will be terrible in their effects.

It is frequently charged that the present situation in Germany has been brought about deliberately. Such charges are necessarily difficult to

prove and, in this case, it is not hard for Germany to reply by pointing to the simple facts. It was economically impossible for Germany to make immediately any large payments. She might have borrowed had her credit permitted but almost her only source was the sale of paper marks to speculators in other countries.

In February, 1920, an unusually competent expert, with large resources at his disposal, made an exhaustive analysis of Germany's economic condition and her capacity to make reparations payments. He was a citizen of one of the allied powers. Unfortunately he may not be named, but his prejudices, if they existed at all, must have been strongly against Germany. He closed his analysis with the following statement.

During the next ten years it would be in the highest degree dangerous to cherish any illusions as to the effective practicability of collecting the yearly payments laid down in the Paris agreement.

The present writer shares the view and adds that, since this judgment was expressed in 1920, German capacity to make immediate external payments has been very greatly weakened. Now she is facing an economic crisis of terrible severity that may break at any time. Her business is today largely on a speculative basis, her foreign trade is growing more and more unfavorable and at any time there may come a crash in which private corporations, banks and government will be compelled to default on their obligations.

How soon this may come no one can say, and it may, of course, be worked out in the tragic manner we have witnessed in Austria and elsewhere. Germany, however, has numerous large industrial centers, her population is of a very different tempera-

ment, and a general and perhaps sudden breakdown seems more probable. The social consequences of such a catastrophe, not only in Germany but throughout Western Europe, the

writer will not attempt to forecast. After all, the purpose of this paper is merely to picture the facts as they now stand, rather than to indulge in prophecies.

Chapter VI

THE UNITED KINGDOM

IN successive chapters we have examined Italy, France and Germany. In each case we have analyzed the national economic situation with two purposes in view. The first was to discover whether the productivity of the country and its economic organization were such that large external payments by the delivery of goods and services is a possibility—an economic possibility. The second purpose was to ascertain whether the finances (corporate, bank and governmental) were in such condition as to present obstacles to such payments.

In the chapter on Italy, the facts discovered warrant the conclusion that she has very slight economic capacity for external payments and her finances are badly involved. France has much greater capacity and her organization is such that she could, after a time, begin substantial payments, if her finances, especially those of the government, were not in so serious a condition. Germany's capacity has been seriously weakened especially by post-war developments. In spite of some evidences of improvement her capacity is declining. Her finances are in a much more dangerous condition than those of Italy and France.

PRE-WAR ENGLAND

Our next inquiry is into the situation in Great Britain. As with other countries we shall examine first her pre-war status.

With an area of 121,633 square miles, the United Kingdom of Great Britain and Ireland had a population of 45,221,615 in 1911. This is a density of 371 per square mile compared with 311 for Germany, 191 for France and 313 for Italy.¹ The per capita income in 1914 was \$243,² an amount considerably higher than the \$146 in Germany, \$185 in France and \$112 in Italy. It is well known that there was considerable inequality in the distribution of this annual income and a large amount of poverty, but the fact remains that a very large number of people did exist in a relatively small area.

Their ability to do so was dependent on a maintenance of certain basic conditions in English economic organization. An island country just off the mainland of Europe, Great Britain was free from military invasion and developed her economic and political institutions more rapidly than did continental countries. Among the notable features of her history in the late eighteenth century and throughout the nineteenth was the so-called Industrial Revolution, a development of a manufacturing life considerably in advance of that in other countries.

¹ Of course the significance of density is very greatly affected by fertility of soil, volume of trade and other considerations.

² *The Income in the United States* by W. C. Mitchell et al., p. 85. Adapted from the estimates of Sir Josiah Stamp.

This growth carried with it certain results, of which three are the most important. First was a neglect of agriculture and a very great dependence on other countries for food supplies. Just how great this dependence was depends on the way one chooses to express it—whether in values, in tons, in calories, or in some other way. Sir Henry Rew estimates³ that:

Omitting sugar, home-grown produce amounted in crude weight to nearly two-thirds (64 per cent) of the total supply. When to these figures are added an estimate for cottage and farm produce, for which the weight is not given, and the total supply is converted into calories, it appears that home produce supplied about 48 per cent in food value of the total consumption.

The second result was the importance of securing a steady and reliable flow of raw materials in order to keep the factories in operation. The third was the importance of maintaining markets in which the manufactured products could be sold. Food, raw materials and markets were and still are fundamentals in British economic life.

This meant a large foreign trade whose importance it is difficult to express. One estimate is by Dr. B. M. Anderson, Jr., and is a comparison

of the foreign with the domestic trade. The estimates of Dr. Anderson are for France, the United Kingdom and Germany and include also the estimated total income for each of the countries as given in the statistical abstract of the United States for 1920. With them the writer has combined Dr. Anderson's similar estimates for the United States for the same year.⁴

The importance of foreign trade to Great Britain was not only large in absolute amounts but much more important than that of any of the other countries named. Whether this was an advantage or a disadvantage, a sign of progress or of decay, need not now concern us. It is a real and, at present, a very serious fact in British economic life.

Along with this vast trade which had become so important to the British, there had quite naturally developed a great merchant fleet—the largest in the world. On June 30, 1914, Great Britain's tonnage of steel, steam and motor vessels of over 100 gross tons was 18,877,000. Her nearest competitor, Germany, had 5,098,000 gross tons or only 27 per cent as much. This fleet carried a very large fraction of British trade and also an important amount for other countries, the freights thus earned

RATIOS OF FOREIGN TO DOMESTIC TRADE—1913

COUNTRY	INCOME	DOMESTIC-TRADE INCOME MINUS IMPORTS AT RETAIL PRICES	FOREIGN-TRADE EXPORTS AT RETAIL PRICES	RATIO OF FOREIGN TO DOMESTIC TRADE
France.....	\$7,299,750,000	\$4,841,154,840	\$1,843,435,440	38%
United Kingdom.....	10,949,625,000	6,138,418,335	3,833,765,364	62%
Germany.....	10,462,975,000	6,617,977,900	3,604,450,500	54%
United States.....	34,800,000,000	32,100,000,000	3,700,000,000	11.5%

³ *Op. cit.*, p. 25.

⁴ "America and Europe—Our Interest and Our Policy." *The Chase Economic Bulletin*. Vol. II, No. 4. pp. 10 and 11.

adding a large sum to the annual income of the country.

Years of development along these lines had been accompanied by heavy British investments in other countries, until just before the war the total of these investments was estimated by Sir George Paish at £4,000,000,000 (about \$20,000,000,000).

Under these circumstances, Britain—like Italy, France and Germany—was a country with an import balance of trade. In 1913, her total imports were £768,753,000 (about \$3,843,765,000) and her exports £634,820,000 (about \$3,174,100,000), a difference of £133,933,000 (about \$669,165,000).

Of these imports an important amount (£109,575,000) were brought into the country to be shipped out again or re-exported, making net imports £659,178,000 and net exports £525,245,000.

Just how British trade was classified in 1913 is shown by the following table, which gives the leading groups of imports and exports. A few items are not included.

These facts about her imports and exports are particularly important and will be mentioned again in our discussion of post-war developments.

The invisible items in the British international balance sheet were more important and more numerous than those of any other country we have examined. The large import balance of trade and certain invisible debits were more than offset by interest on foreign investments, earnings of the merchant marine, commissions received by her bankers and insurance companies for services rendered to foreigners, and in other ways.

Financially, Great Britain was in good condition, as compared with the Continental countries. Her fiscal system ranked high. After the deficits of the Boer War, she had a substantial surplus of revenue over expenditure every year until 1914-15, with the exception of a deficit of £714,000 in 1908-09. Her total national debt in 1912-13 was £661,474,000 (about \$3,307,370,000). Her regular policy was to make annual reductions of this

BRITISH FOREIGN TRADE IN 1913

(000's omitted)

	IMPORTS	EXPORTS	EXCESS OF EXPORTS (+) OR OF IMPORTS (-)
Food, drink and tobacco	£295,152	£33,876	£261,276 -
Raw materials and articles mainly manufactured	269,940	66,168	203,772 -
Articles wholly or mainly manufactures ..	201,036	413,820	212,784 +
	£766,128	£513,864	£252,264 -

An examination of this table shows that Great Britain imported £261,276,000 of food, drink and tobacco and £203,772,000 of raw materials, more than she exported, while she exported £212,784,000 more of manufactured articles than she imported.

debt through sinking fund payments.

Britain's great industrial organization developed rapidly and its world supremacy was unchallenged until about 1870. After that date, keen competition appeared, especially from Germany and the United States

Relatively, England lost ground and, in the years just preceding the war, she was becoming greatly disturbed over the inroads being made in her trade.

No economic organization can be described briefly but, in so far as brevity and simplicity are at all permissible, it is correct to say that the British economic structure rested on two theoretical assumptions—a belief in the efficacy of free competition and a disbelief in government interference in industry. To these generalizations many exceptions can be found but they are, on the whole, correct. Germany was applying quite opposite theories and also utilizing modern science more than any other country. The United States had particularly large natural resources and had especially developed standardized output.

British strength rested more on her coal supply than on any other one natural resource. On it, of course, depended her industries—iron, steel, textiles and the rest. Since her imports were largely heavy and bulky, while her exports were the lighter manufactured articles, her outbound shipping could carry large quantities of coal at low rates in lieu of ballast. Coal, exported in 1913, was valued at £53,660,000, out of a total of £66,168,000 of raw materials exported.

Because of the importance of coal in British industry and in British export trade, a few words should be said of its status. "During the last forty years there has been an almost unbroken decrease in the tons of coal mined per man per annum."⁵ The output has been as follows:⁶

BRITISH COAL OUTPUT

YEARS	OUTPUT	
	Long tons per person per annum	
Average for the decade	1883-1892	297
	1893-1902	277
	1903-1912	265
	1913	258
	1914	234
	1915	265
	1916	256
	1917	243
	1918	225
	1919	193
	1920	182

While the reduction has been most noticeable during and particularly since the war, it will be observed that there was a considerable decline before the war. This does not mean a decline in total output which, indeed, was increasing. The production in 1880 was 146,819,000 tons and in 1913 was 287,430,000 tons. The growth, however, was not so great as in other countries—notably in Germany and in the United States—and the tonnage produced was less per person.

The reasons were numerous. Among them were the use of a smaller amount of machinery than in other countries, the low levels from which the coal must be raised, the difficult character of many of the seams, the uneconomical nature of early coal mining and numerous difficulties due to overlapping coal rights which made large scale operations impossible.

GREAT BRITAIN AFTER THE WAR

What has been the situation in Great Britain since the end of the war? During the war "by a special effort the amount of cereal food and

⁵ Walter S. Tower (United States Commercial Attaché in London), *et al. Supplement to Commerce Reports, "United Kingdom,"* p. 15. (*Trade and Economic Review for 1921.*)

⁶ *Special Report in Coal Situation* by Alexander V. Dye, American Trade Commissioner, London, January 4, 1922.

potatoes was increased, but there was a marked reduction of other kinds of food, meat and milk particularly. Whether the pre-war standard of output has been regained is doubtful, and there is not sufficient evidence on which to found a considered opinion."⁷

The population of Great Britain, in spite of war losses, is no less than in pre-war days, the normal growth in numbers and the check to emigration proving more than an offset. With more mouths to feed and certainly no gain in domestic production, imports of food must continue at least at their former level, unless there is a reduction in living standards.

COAL

We have commented on the importance of British coal and noted the decreased output per person employed for many years prior to the war. The output of the last few years, compared with that of 1913, is as follows (in thousands of tons—monthly averages):⁸

PRODUCTION OF COAL IN THE UNITED KINGDOM
(in thousands of tons—monthly averages)

1913.....	24,342
1920.....	19,402
1921.....	13,760
1922	
January.....	17,990
February.....	20,090
March.....	25,161
April.....	18,352
May.....	19,466
June.....	20,699

The small average output in 1921 is, of course, to be explained by the strike in the early part of the year.

⁷ Sir R. Henry Rew, "The Progress of British Agriculture." *Journal of the Royal Statistical Society*, January, 1922, p. 19.

⁸ League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 7.

During this year (1922) the volume is still below the pre-war level though higher than that of 1920.

There is not space here to give many details. For a time after the war, coal mining remained under government control. Prices for exported coal were high and large gains were made by the owners. Suddenly, in the spring of 1921, the government withdrew its control and a strike followed. Also, the general business depression, American competition and glut of the French market (the most important continental one for Great Britain) with reparations coal, forced a reduction in exports and a heavy decline in price. In spite of the maintenance of output, severe losses occurred and, for a number of months, there has been grave anxiety over the condition of the trade.

A few figures will make this clear. The average earnings per shift of all miners employed in April, 1922, were no more than 45.50 per cent higher than in 1913-14, while the cost of living was 82 per cent higher.⁹ In addition to these low earnings per shift, the average number of shifts worked per week had declined from 5.34 before the war to 5.05 per week. No one, so far as the writer is aware, contends that the wages of the miners are too high if a standard of living basis is used as the measure. In fact, most critics condemn what they consider to be the deplorable living conditions among the miners. At the beginning of July, 1922 there were 95,601 miners totally unemployed.¹⁰

⁹ These statistics and the others immediately following are from R. H. Tawney, "The Recent History of the British Coal Industry," *Manchester Guardian Commercial, Reconstruction Supplement*, Number Seven, September 7, 1922, p. 414.

¹⁰ A special correspondent of *The Observer* (London) on July 2, 1922 stated:

"It has to be recollected that in practically every coal field the wages of a miner who is so ex-

Early in the summer of 1922, the mines were being operated at a loss. Net costs of production averaged 38 s. 11.66 d per ton for the industry but varied from 33 s. 4.2 d in the Midlands to 60 s. 9.5 d in South Wales. Export prices, during the first six months of 1922, averaged 22 s. 9 d. The growing demand from Germany, referred to in the preceding chapter, and large orders from the United States, because of the serious coal strike of 1922, gave relief during the summer. But such orders do not furnish much hope for the future. The settlement of our coal strike meant an immediate lessening in orders from America and there looms ahead the probability of a serious crisis in Germany in the not distant future.

We may close our reference to coal by quoting Mr. R. H. Tawney, from whose article we have taken the above statistics:

For, on a long view, what has turned the United Kingdom from a sparsely populated agricultural society into one which, judged by the standard of the greater part of the human race, is wealthy, has been the existence of abundant coal and, now that the decline of the British coal age is not far below the horizon, economical utilization, in the spheres of consumption and distribution not less than that of production, of a vital and lasting asset is among the three or four most fundamental economic issues with which a nation can be faced.

IRON AND STEEL

Iron and steel are among the most important British products. A glance

treribly lucky as to get a full week's work are only 20 per cent above the July, 1914, rate, though the cost of living index figure is still 80 per cent above that ruling in pre-war days, and, as I have said, great numbers are working only three or four days a week, or not at all."

at the following tabulation shows how small the present output is, compared with that of 1913.

BRITISH OUTPUT OF IRON AND STEEL*
(monthly averages—in thousands of metric tons)

	PIG IRON	CRUDE STEEL
1913.....	869	659
1920.....	678	767
1921.....	221	307
1922		
January.....	293	333
February.....	305	422
March.....	396	558
April.....	401	411
May.....	415	470
June.....	375	407

* League of Nations, *Monthly Bulletin of Statistics* June, 1922, p. 8.

It will be noticed that the output of 375,000 tons of pig iron in June, 1922, was less than one-half that in 1913 and that the 407,000 tons of crude steel was only 61 per cent of that in 1913. However, both have increased from the low level of 1921, when they were seriously affected by the coal strike.

Two points call for emphasis. One is the close relation between the iron and steel industry and coal. The other is that both were in much better condition in 1920 than at present. In fact in 1920, the production of crude steel was over 100,000 tons in excess of that in 1913. Great Britain did not suffer from the direct ravages of war as did France and Italy, nor has she had the same post-war problems as Germany. Her difficulties are to be closely associated with the world-wide business crisis of 1921, the effects of which were also to be observed in Italy. Britain has the advantage, however, of a better basis for the industry in her supply of coal

and considerable amounts of iron ore. Also, her finances are in much better condition.

SHIPPING AND SHIPBUILDING

British welfare is greatly affected by the earnings of her merchant fleet and the activity of her shipyards. Her fleet is only slightly larger than in 1914, but its earning power has been affected by several influences. One was the collapse in freight traffic and rates in 1920.¹¹ A second was the added difficulty because the industry, like most others, had been heavily capitalized during the boom period and many losses had to be written off. A third is the very large increase in the volume of world shipping whose gross tonnage grew from 42,514,000 on June 30, 1914, to 56,802,000 on June 30, 1922, an increase of about one-third in eight years. Two of these influences are of a temporary nature and revival of general business would mean that their effects would gradually become less noticeable. The third is more serious. So large an increase in world tonnage raises a much more difficult question. The condition of the coal industry furnishes one of Britain's largest problems. That of her shipping in the face of this large world tonnage and keen competition is another.

The tonnage of vessels entered and cleared at the ports of the United Kingdom is as follows:

¹¹ Facts regarding idle shipping are hard to secure. One estimate (W. S. Tower, *et al.*, *op. cit.*, p. 35), early in 1922, was that over 1,100,000 tons of British shipping were idle in home ports and as much more outside—a total of 2,200,000 tons or over 11 per cent of the tonnage. The same source quotes the Statist's index numbers of ocean freights and time charter rates as 33 and 30 per cent respectively of the 1920 rates.

UNITED KINGDOM—TONNAGE OF VESSELS ENTERED AND CLEARED WITH CARGO

(Monthly averages—thousands of tons)

	VESSELS ENTERED	VESSELS CLEARED
1913.....	4,089	5,652
1920.....	3,043	3,049
1921.....	3,098	3,032
1922		
January.....	2,906	3,919
February.....	2,568	2,903
March.....	3,238	4,814
April.....	3,313	4,184
May.....	4,101	5,104
June.....	3,822	4,975

Even the tonnage of vessels entered and cleared is appreciably below that of 1913, but these figures tell little of the weight of the actual shipments of commodities.

What is the condition of shipbuilding, another of the most important British industries? Tonnage under construction in British shipyards for certain recent dates are:

BRITISH SHIPBUILDING—TONNAGE UNDER CONSTRUCTION

March 31, 1921.....	3,798,593
June 30, 1921.....	3,530,047
September 30, 1921.....	3,282,972
December 31, 1921.....	2,640,319
March 31, 1922.....	2,235,998
June 30, 1922.....	1,919,504

The decline from March 31, 1921, to June 30, 1922, is nearly 50 per cent and is in itself serious. It becomes far more so when we find that beginning with June 30, 1921, the figures include many tons on which work has been suspended and also much tonnage whose completion has been postponed.

Of the construction on June 30, 1922, the last date given, *Lloyd's Register* states that not only is there

a reduction of 316,000 tons from March 31, 1922, but the figure includes 481,000 tons on which work has been suspended for some time, leaving only 1,439,000 tons actually under construction. Archibald Hurd writing in the *Daily Telegraph* (London) of July 22, 1922, stated:

There is more unemployment today than ever before in the history of the ship-building industry and this new return of *Lloyd's Register* suggests that there will soon be little or no work.

TEXTILES

The coal industry has been active but losing money. Shipping and ship-building have not even been active. What of textiles of which cotton goods and yarns are the most important, with woolen goods and yarn coming next. We shall refer only to cotton-piece goods where the problem is particularly serious and where it is most important, because of the large amount of capital and labor in the industry.

The following figures of exports tell the story, but need a word of explanation. In 1913, linear yards were given but now the statistics are in square yards. The exports of cotton-piece goods in 1913 were 7,075,252,000 linear yards, a figure which must be increased by about 14 per cent for comparison with square yards.¹² When this is done the amount is 8,065,787,000 square yards:

EXPORTS OF COTTON-PIECE GOODS FROM THE UNITED KINGDOM (in square yards)

1913.....	8,065,787,000
1920.....	4,435,405,000
1921.....	2,902,659,000
1922 (six months ending June 30) .	1,850,860,000

¹² W. S. Tower, *et al.*, *op. cit.*, p. 19.

In 1921, these figures were only about 36 per cent of the ones for 1913. To find a figure comparable to this, one must go back to 1865, when the exports of cotton-piece goods were 2,014,304,000 linear yards, which, increased by 14 per cent, gives 2,296,306,560 square yards. This is less than the exports in 1921, but the figures for 1866 were considerably above it.

The figures for 1922 show February as the poorest month, followed by an improvement later but not enough to warrant any great degree of optimism. The total for the first six months of the year was 1,850,860,000 square yards, which is at the rate of 3,701,720,000 square yards for the year. Exports for July were 43,609,800 square yards.

The difficulties faced by the industry are numerous and include the high price of raw cotton, a world-wide trade depression, a very large loss of markets in certain parts of the world where trade has lessened or disappeared, the raising of tariffs particularly in India (one of the largest of British markets), and the growth in

COTTON-PIECE GOODS IN INDIA—AMOUNT PRODUCED AND IMPORTED* (in million yards)

YEARS	COTTON-PIECE GOODS PRODUCED	COTTON-PIECE GOODS IMPORTED
1911-12.....	1,136	2,428
1912-13.....	1,220	2,986
1913-14.....	1,164	3,159
1914-15.....	1,135	2,419
1915-16.....	1,442	2,118
1916-17.....	1,578	1,892
1917-18.....	1,614	1,524
1918-19.....	1,451	1,097
1919-20.....	1,640	1,064
1920-21.....	1,581	1,491

* Taken from an article entitled "The Lancashire Cotton Industry" by F. W. Tattersall, in *Sperling's Journal*, March, 1922, p. 37.

the number of cotton mills in India, Japan, Italy, Germany, the Southern United States and elsewhere. The statistics in the preceding table show the effect on British cotton goods of the increased manufacturing in India. British capital is behind many of the Indian mills but that does not give freight to British shipping or employment to the workers of Lancashire.

The general tendency shown by these figures is clear. As local production has increased, imports have decreased. This reduction in imports has been influenced somewhat by the tendency of India to raise its tariffs. The duty on cotton goods has been altered in recent years as follows: In 1896, the duty was $3\frac{1}{2}$ per cent and an excise tax of the same amount. In 1917, the import duty became $7\frac{1}{2}$ per cent, while the excise tax remained at $3\frac{1}{2}$ per cent. In 1921, the duty was raised to 11 per cent, the excise

tax remaining unaltered. In March, 1922, it was proposed to raise the rates to 15 per cent and $7\frac{1}{2}$ per cent respectively, but the proposal was withdrawn. England has to face tariff barriers even among her own colonies.

These illustrations of the difficulties of British industries are sufficient to show what problems are being faced. Let us next notice British foreign trade as a whole over a period of several years, remembering how important foreign trade is to England, its relationship to her domestic trade being placed by Dr. B. M. Anderson, Jr. as quoted above at 62 per cent.

First, this trade may be given in "declared values" as they are called. This is merely a statement in pounds sterling of the values of imports and exports.¹³

One is struck, in the examination of these figures, by the large amounts for 1920, as compared with 1913, and

VALUE OF BRITISH FOREIGN TRADE AS DECLARED

(Quarterly totals—in £1,000)

	TOTAL IMPORTS	RE-EXPORTS	EXPORTS OF UNITED KINGDOM GOODS
1913			
1st Quarter.....	196,297	31,084	127,310
2nd Quarter.....	182,467	27,967	129,751
3rd Quarter.....	179,021	23,313	133,701
4th Quarter.....	210,968	27,203	134,492
1920			
1st Quarter.....	530,257	75,100	295,543
2nd Quarter.....	505,763	60,791	341,924
3rd Quarter.....	468,375	44,567	369,811
4th Quarter.....	435,551	41,948	328,291
1921			
1st Quarter.....	307,712	26,847	227,787
2nd Quarter.....	264,059	22,839	141,108
3rd Quarter.....	255,987	27,954	149,766
4th Quarter.....	259,004	29,412	184,535
1922			
1st Quarter.....	233,710	28,787	186,063
2nd Quarter.....	253,553	26,885	165,699
July.....	81,784	8,317	60,419

¹³ These and the following figures are from the *Board of Trade Journal*, *passim*.

the abrupt decline in 1921 and 1922. This is true of both imports and exports. Nevertheless, the figures for 1922 are still greater than those for 1913 and, hence, are not discouraging until one remembers that the different price level should be allowed for.

A very valuable contribution to the analysis has been made by the *Board of Trade Journal* which has adjusted these prices to the level of 1913. The results give a much fairer picture of the real state of British trade than do the first set of figures, and are as follows:

the imports in the first half of 1922 is only 85 per cent of those for the first half of 1913, and of the exports only 66 per cent.

This is extremely serious and becomes even more so upon further analysis. The table on page 94 shows the imports on the basis of 1913 prices for the first and second quarters of the same four years. They are divided into three groups which include nearly all of the goods imported.

The first thing to be noticed is that the United Kingdom is importing as much food, drink and tobacco as in

VALUE OF BRITISH FOREIGN TRADE ON BASIS OF 1913 PRICES
(Quarterly totals—in £1,000)

	TOTAL IMPORTS	RE-EXPORTS	EXPORTS OF UNITED KINGDOM GOODS
1913			
1st Quarter	196,279	31,084	127,310
2nd Quarter	182,467	27,967	129,751
3rd Quarter	179,021	23,313	133,701
4th Quarter	210,968	27,203	134,492
1920			
1st Quarter	186,762	34,142	90,761
2nd Quarter	176,237	26,542	95,399
3rd Quarter	162,141	18,536	98,351
4th Quarter	154,134	19,687	87,965
1921			
1st Quarter	139,083	17,198	68,150
2nd Quarter	137,784	17,681	49,822
3rd Quarter	140,693	25,948	62,048
4th Quarter	152,452	24,785	81,627
1922			
1st Quarter	156,522	28,581	85,454
2nd Quarter	166,963	21,828	84,348

Even the year, 1920, was a much poorer year than 1913, when presented in this manner. Imports, in 1920, were less and the exports of that year were actually less than 75 per cent of those in the earlier year. In 1921, the reduction, particularly of exports, was to only about one-half the 1913 amount, while the recovery in 1922 is by no means large. The amount of

1913. Her population has grown in numbers and has not reduced the amount of food it consumes. A different story is told by the figures for imports of raw materials and articles mainly unmanufactured. They have declined alarmingly and in the first half of 1922 are only 74 per cent of those for 1913. This means that British manufacturers have not been purchasing the

BRITISH IMPORTS—DETAILED VALUES ON BASIS OF 1913 PRICES
(Quarterly totals—in £1,000)

	I. FOOD, DRINK, TOBACCO	II. RAW MATERIALS AND ARTICLES MAINLY UNMANUFACTURED	III. WHOLLY OR MAINLY MANUFACTURED
1913			
1st Quarter	62,333	59,937	42,230
2nd Quarter	63,451	42,238	43,192
1920			
1st Quarter	66,025	53,180	33,148
2nd Quarter	61,792	46,928	40,748
1921			
1st Quarter	57,277	37,020	28,113
2nd Quarter	63,026	27,769	23,990
1922			
1st Quarter	65,756	33,791	27,887
2nd Quarter	69,181	42,181	33,312

raw materials for their factories. Until these figures improve, business cannot again be active. Not until the second quarter of 1922 were these imports as great as in the corresponding quarter of 1913. This is encouraging but has not continued for a time sufficiently long to warrant basing conclusions on it. The figures for the third group show that purchases of

manufactured articles are still at a very low level.

Similar figures for exports are given in the table below with the third quarter of 1921 included.

In this table, the third group—manufactured articles—is the most important with the exception of coal in the second group. Exports of manufactures are less than two-thirds of what

BRITISH EXPORTS—DETAILED VALUES ON BASIS OF 1913 PRICES
(Quarterly totals—in £1,000)

	I. FOOD, DRINK, TOBACCO	II. RAW MATERIALS AND ARTICLES MAINLY UNMANUFACTURED	III. WHOLLY OR MAINLY MANUFACTURED
1913			
1st Quarter	6,884	15,544	102,514
2nd Quarter	7,255	16,805	103,329
1920			
1st Quarter	5,097	10,124	74,048
2nd Quarter	3,863	7,933	82,341
1921			
1st Quarter	3,987	6,394	56,608
2nd Quarter	3,498	3,416	41,792
3rd Quarter	4,602	7,946	48,110
1922			
1st Quarter	4,372	13,309	66,329
2nd Quarter	4,408	15,199	63,335

they were in 1913. There has been a considerable amount of recovery from the low point of 1921, but the amounts are as yet discouragingly small.

In an address before the Worsted Spinners' Federation at Bradford, England, on May 11, 1922, the Right Honorable Reginald McKenna, Chairman of the London Joint City and Midland Bank said:¹⁴

The time for glittering promises is past. We know today that there is no short cut to national prosperity, not even by making Germany pay. . . . Notwithstanding recent remissions of taxation, I believe that the remaining burden is heavier than can be borne consistently with the prosperous development of our trade.

He further pointed out that much of the revival that had appeared in export trade was due to the British purchase of colonial and foreign securities, i.e., that the exported goods are being loaned and that trade cannot continue indefinitely on those terms.

The only definitely encouraging fact in our survey of the trade statistics is the return of the imports of raw materials in the second quarter of 1922 to the level of the corresponding quarter of 1913. This suggests

a growing confidence among British manufacturers that they will be able to sell their goods. Whether that confidence is warranted the developments of the future will show.

UNEMPLOYMENT IN GREAT BRITAIN

With so serious a situation in industry and trade, we need not be surprised at the large amount of unemployment in England. To the ordinary traveler it is more noticeable than in the other countries we have mentioned, but that is in part due to the different method of dealing with the problem.

However, unemployment is actually more serious in England than in the other countries named. This is not easy to demonstrate statistically, because such information is reported in different ways in various countries. The figures we shall give are based on the number of workers covered by the returns from the trade unions. Of the workers so included, the percentages unemployed on various dates were as shown in the table below.

The large percentage of 23.1 in June, 1921, is to be explained by the coal strike at that time and, doubtless, strikes have helped swell the total on

UNEMPLOYMENT IN THE UNITED KINGDOM IN PERCENTAGES OF REPORTING TRADE-UNION MEMBERSHIP

	PER CENT		PER CENT
1913—March	1.9	1921—March	10.0
June	1.9	June	23.1
September	2.3	September	14.8
December	2.6	December	16.5
1920—March	1.1	1922—January	16.8
June	1.2	February	16.3
September	2.2	March	16.3
December	6.1	April	17.0
		May	16.4
		June	15.7

¹⁴ *The Westminster Gazette*, May 12, 1922.

later dates as well. But strikes are themselves only in part the cause of unemployment. They are, to a very important extent, a result of the difficulties Great Britain is facing. It will be noticed that the latest figure given (June, 1922) is 15.7 per cent or between one-sixth and one-seventh of the workers included in the returns.

Total numbers are hard to give, but, during the summer of 1922, a common current estimate was 2,000,000, which is between 4 and 5 per cent of the total population. On August 20, 1922, the total amount of registered unemployment was 1,333,700. So much concern has been felt over the outlook for the coming winter months that there has been created a special Cabinet Committee on Unemployment which has sanctioned several plans of relief, calling for about £10,000,000 of expenditures on road building, repairs and other public work. Admirable and important as these plans may be, we should not forget that there is one thing they do not do. They do not add in the least to the amount of food and clothing immediately in existence in Great Britain. Such efforts do not mean that more goods are manufactured and sold, more food imported, raw materials secured and markets exploited. By the payment of wages to the workers thus employed, much distress will be relieved but it merely means a better distribution of goods already in existence in the country, not an addition to the volume of these goods. The roads and other public works may add to the future productivity of the country—they do not increase it in the immediate present.

FINANCES

The British industrial situation is discouraging. Recovery is slow and

there is nothing to warrant any expectation of rapid return to pre-war levels.

British finances are a pleasant contrast. Prices rose during the war, in England as elsewhere, but less than in the leading Continental countries, the Board of Trade index number being 314 in 1920 (1913 equals 100). Since then, prices have fallen, until in June, 1922, the figure was 163, or only 63 per cent above 1913. This has forced a considerable amount of liquidation, a movement which has gone much farther than on the Continent. The pound sterling went to \$3.18 in February, 1920 (par being \$4.8665) but has this year been as high as \$4.50 and at the present writing is about \$4.39. There is nothing about the reports of condition of British banks nor of the Bank of England that calls for analyses similar to those we have given for other countries. Standards and practices have been modified during and since the war but there is no occasion for concern over the immediate financial situation except as it may be affected by the industrial conditions already described or by the government's fiscal situation.

GOVERNMENT FINANCES

British war finance was not above criticism but was much better and safer than that of most belligerents. Taxes were heavy, and inflation, though unfortunately severe, was minimized. The debt rose until on March 31, 1920, its gross amount was £7,875,600,000. By March 31, 1921, this had been reduced to £7,623,100,000, of which £1,161,600,000 was foreign (converted at \$4.862½ equals £1).¹⁵

¹⁵On March 31, 1921, other governments owed the British Government £1,963,000,000. Of this little or none will be a source of revenue for the present, much of it not for a long time and considerable amounts never.

The floating debt is being reduced and the danger from it lessened.¹⁶

British financial genius has again been manifested. Nevertheless, there is a heavy strain. One way in which this appears is in the figures for the budget for 1922-23. In 1921-22, total expenditures were £1,079,000,000 and revenues £1,125,000,000, leaving a surplus of £46,000,000 in spite of many early predictions of a deficit. However, the large sum of £170,806,000 came from certain special sources among which was the sale of war supplies. Critics of the government have very properly contended that correct accounting would not recognize such sums as revenue but would place them in the capital account, using them not to meet current expenses but to liquidate indebtedness. There is no question as to the propriety of this from the accounting standpoint and no examination of the British Budget should ignore the point. Income of this kind is not regular and is secured by a diminution of assets.

For the year 1922-1923, the estimated expenditures are £910,060,000 and revenues £910,775,000. To meet loud criticisms against the heavy taxes, there has been adopted an income-tax reduction of one shilling per pound sterling and certain minor changes. This has been made possible, however, only by sacrificing one of the most important of the British fiscal traditions. Payments to sinking fund are suspended and maturing indebtedness is to be met by new borrowings. Whether, with these changes, the year will show the surplus estimated it is too soon to know, but, in any case, tax pressure is still heavy and not all students are confident of the forth-

coming revenues. There is general agreement that this fiscal year will be more of a strain than the last one.

In discussing Continental finances, we have referred to the futility of urging that budgets be balanced largely through a reduction in expenditures, pointing out that only moderate amounts can be saved in that way. The large items in the budget are of a sort that can be reduced only through default since they are for pensions and interest on debt.

For Great Britain the estimated (not the actual) expenditures for the fiscal year ending March 31, 1922, were £1,062,623,000. Of this sum, 14.8 per cent was for pensions and 30.3 per cent for interest on the public debt, a total of 45.1 per cent for these two items alone.¹⁷ Savings there should be wherever possible and doubtless many can be made, but it should not be forgotten that the tension cannot be greatly relieved in this way.

THE BRITISH POSITION

Great Britain is contending with several difficulties which should now be enumerated. Because of her relatively good financial condition and the recovery of the pound sterling in 1922 to \$4.50 there is a danger that we shall not appreciate her situation. In the judgment of the writer, her economic problems for a considerable number of years in the future are more acute than those of any other country in Western Europe.

Let us examine the basis for such an assertion. First is the fact that since about 1870 British supremacy has been challenged, especially by Germany and the United States. She industrialized early and, more than any other country in the world, has

¹⁶The total floating debt (including both Treasury Bills and temporary advances) was £1,374,000,000 on June 30, 1921, and £965,000,000 on June 30, 1922.

¹⁷Actual expenditures for 1922 included £332,294,000 for debt service. This was 30.7 per cent of the total for the year.

placed her population (about 45,000,000) in a position of dependence on outside sources of food supply and raw materials and on foreign markets. In doing this she has depended on several factors, two of the most important being a large supply of good coal and relatively cheap labor. She has not introduced modern methods of organization as fully as the other two countries nor has the government (aside from the war period) exercised any very large measure of control over business. *Laissez-faire*, free competition and reliance on individual initiative have been guiding principles.

With her industrial organization and large population, any disadvantage in the world's markets, even though a temporary one, becomes immediately serious. It is now often argued that relief may be secured through the emigration of the excess population to other parts of the British Empire. Such relief will not be entirely adequate, since many of her people do not care to emigrate, and many would not readily adapt themselves to so great a change in environment. Besides, the annual increase in population is so great that it would seem difficult to transport enough to do any more than maintain the population at, say, its present level. Whether even that much could be done is by no means clear.

Britain must then continue more energetically than ever her struggle for industrial recovery. Food, raw materials and markets are vital. In carrying on this struggle, she faces a coal problem (described in the earlier part of this chapter) and must contend against rivals in the ocean-carrying trade, especially against the United States with her new merchant marine (which many Americans wish to subsidize), and against Germany, whose merchant fleet is now rapidly growing.

England's second difficulty is an industrial organization greatly weakened by the war and post war developments. She suffered less than many others but more than is often realized. Under favorable conditions her recovery might have been rapid but these favorable conditions have not been present. One English economist has argued that, whereas in 1907 England devoted 23.7 per cent of the national income to maintenance of capital at home and to new investments at home and abroad, in 1920 (a so-called prosperous year) only 5.4 per cent was so used.¹⁸ No recent similar estimates are before the writer but if such a condition is being continued, the results will be serious.

The third difficulty is the world-wide trade depression. In so far as this is like other depressions, the passage of time will bring relief. A fall in prices of the sort experienced in 1920 and 1921 could not well occur without the usual bankruptcies, cancelled orders, unemployment, etc. But those who have expected this depression to end in a short time or even in several years, as did those beginning in 1873 and 1893, have not fully appreciated the gravity of the crisis. If history is a guide at all, this depression, already more serious than any of its predecessors, will last much longer. As the most completely industrialized country in the world, Great Britain is the most dependent on the free movement of trade and the greatest sufferer from its present interruption.

Fourth is the persistence of the world-wide political, economic and social unrest. Every period is one of transition but this is unusually so. The post-war adjustments by treaty

¹⁸ Edgar Crammond, *London Times*, June 28, 1921, as quoted by Bass and Moulton, *America and the Balance Sheet of Europe*, p. 132.

and otherwise have meant altered trade movements.¹⁹ Old channels for the movement of goods have been abandoned for new ones. Tariffs have been altered and embargoes imposed. Great areas, such as Russia, from which food supplies were secured and to which exports were sent, have been largely eliminated with appalling consequences both direct and indirect.

These are the more material factors but they cannot be dissociated from those of another sort. A non-coöperative movement in India checks foreign purchases by that country. A wave of anti-foreign feeling in China has the same effect. The downfall of Greece in Asia Minor during September, 1922, means an immediate decline in orders from the Levant. If the Greek debacle is followed by a war in the Balkans or by a conflict between Great Britain and Turkey, as seems probable today (September 29, 1922), Britain's fiscal difficulties will be increased, her home industries still further disorganized and her foreign trade more demoralized than ever. An economic crisis in Germany, an invasion of the Ruhr by France, or any one of a dozen other contingencies that could easily be mentioned, means more burdens for Britain.

The world, we often say, is an economic unit. For the most part we do not understand the expression and we certainly do not act upon it, nor shape our individual and national

policies accordingly. Great Britain is more completely entangled in this world-wide situation than any of the rest of us, and suffers more than the rest of us, when it is seriously disorganized.

The immediate financial distress on the continent may blind us to the fact that over 45,000,000 people in an island country can exist only if trade keeps moving. Revival is yet relatively slight and the dangers of further trouble are very acute. For a time, Great Britain (we refer to the United Kingdom and not to the British Empire which is very different) may live on her accumulated capital invested abroad, but continued interruption of trade will bring with it serious consequences to an industrialized country with a population of 371 per square mile.

This is not a prophecy of disaster or of anything else. The writer cannot peer into the future. It is merely a frank statement of the situation at the present and an indication of the problems that must be faced, the extent to which solutions can be found remaining to be seen. As yet they are not in sight.

In the meantime, Great Britain is beginning the payment of interest on the debt owed by her government to ours. This she can doubtless do, at least for a time, but only with considerable effort. Whether she can long continue such payments depends on her solution of the problems we have mentioned.

¹⁹ See the article by Emile Mireaux in this volume.

Chapter VII

BELGIUM

BELGIUM is the most densely populated country in the world, there being 647 people to the square mile in 1913. Her general economic status is like that of many of the other countries of Western Europe but resembles England more than any other. Such large numbers can exist in a small area only because of the extensive industrialization.

In spite of intensive cultivation of the soil, she imports a large amount of food. Also, she imports raw materials and exports manufactured goods. Her trade balance is nominally one in which her imports are larger than her exports, the monthly averages in 1913 being 386,333,000 francs for the imports and 302,833,000 francs for the exports. This is a monthly import balance of 83,500,000 francs which amounts to 1,002,000,000 francs per annum. Her merchant marine is negligible and the excess of imports is paid for by the interest on her foreign investments which have been large.

BELGIUM SINCE THE WAR

Although most of Belgium was occupied by German troops during the war, the actual destruction of property in the country was less than in France, where so much of the fighting occurred. This has meant less serious post-war problems than she would otherwise have faced.

Because of lack of space our presentation of post-war conditions must be more condensed than for the other countries.

COAL, IRON AND STEEL

Belgium has large coal deposits and her coal output is accordingly very important, both for its own sake and be-

cause it is an index of industrial conditions throughout the country. In 1913, the monthly average output was 1,904,000 metric tons. In 1920, it was 1,866,000 tons and, in 1921, it was 1,817,000 tons. During the first six months of 1922, the monthly average was 1,785,000 tons. This is over 93 per cent of the rate in 1913, a high percentage when we remember the general business depression.

In 1913, the average monthly output of pig iron was 207,000 metric tons; in 1920, 93,000 tons; in 1921, 73,000 tons, and for the first six months of 1922 it was 108,600 tons. This is very low for 1922, compared with 1913, but a considerable gain over 1921.

For crude steel the monthly average figures were—1913, 205,000 tons; 1920, 104,000 tons; 1921, 66,000 tons; first six months of 1922, an average of 99,600 tons. This record is about the same as for pig iron. The good showing made by coal is not duplicated for iron and steel.

FOREIGN TRADE

In examining foreign-trade figures we should remember that Belgian organization is much like the British. The country is extremely industrialized. Raw materials and foodstuffs must be imported and manufactured articles exported. A decline in foreign trade is disastrous for both countries.

Monthly averages of Belgian foreign trade have been as shown in the table¹ on page 101.

These figures seem to show (1) an increase in volume of both imports and exports, (2) a decline from the high level of 1920 to a much smaller amount in

¹ League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 10.

BELGIAN FOREIGN TRADE

(monthly averages in francs)

YEARS	IMPORTS	EXPORTS	EXCESS OF IMPORTS
1913.....	386,333,000	302,833,000	83,500,000
1920.....	930,460,000	724,847,000	205,613,000
1921.....	837,620,000	594,987,000	242,633,000
1922 (3 months).....	677,081,000	444,552,000	232,529,000

1922 and (3) a continued import balance which is now at a higher rate than in 1920 and of course much higher than in 1913.

There is no official adjustment of these figures to the 1913 level of prices and we cannot make so exact a comparison as we did for Great Britain. There is a test that can be applied and we shall use it with the warning that it is far from precise. It is a reduction of both import and export figures to the 1913 level by dividing by the official index number of prices. This number has not been published for all years but we have it starting as 100 for 1914 and shall arbitrarily take that level for 1913, the difference between the two years not being very great. With a repetition of our reminder that this is far from precise but that it is very much more so than the uncorrected figures, we may present the statistics as corrected.

BELGIAN FOREIGN TRADE
(Corrected figures—see text)
(Monthly averages—in francs)

YEARS	IMPORTS	EXPORTS
1913.....	386,333,000	302,833,000
1920.....	(index number lacking)	
1921*.....	228,850,000	162,540,000
1922 (3 months) ..	189,650,000	124,520,000
Percentage of 1922 to 1913.....	49	41

*The index number for 1921 is 366 and for the first three months of 1922 it is 357.

This shows a very different situation. The value of imports, in 1922, as thus corrected, is only 49 per cent of the imports of 1913 and the corresponding figure for exports is 41 per cent. Both imports and exports, as thus presented, are less than half as large (or at any rate only half as valuable) as those of 1913. This is an alarming state of affairs for a country so dependent on foreign trade as is Belgium. It is made worse by the fact that it is carried on at the high price level. Although our correction shows that in 1922 the excess of imports was only 65,130,000 francs, compared with an excess of 83,500,000 in 1913, such a comparison is entirely meaningless. The balance of indebtedness abroad *piles up at the high price level* even though the volume of trade has very greatly declined.

We have then the spectacle of a country with perhaps less than half of her pre-war foreign trade accumulating foreign indebtedness at a rapid rate because of a high price level. Our figures for the import balance have been given in monthly averages. Multiplying each of these by 12 to get yearly amounts, we have the following: in 1913, 1,002,000,000 francs; in 1920, 2,467,356,000 francs; in 1921, 2,912,676,000 francs and in 1922, during the first three months, at the rate of 2,790,348,000 francs. That the actual amount of trade is less than pre-war is shown also by the tonnage figures.

It must be remembered that tonnage figures are affected by a shift in the composition of trade, e.g., by a change in the amount of a heavy commodity such as coal.

BELGIAN FOREIGN TRADE

(Monthly averages in thousands of metric tons)*

YEARS	IMPORTS	EXPORTS
1913.....	2,721	1,740
1920.....	995	879
1921.....	1,459	1,430
1922 (3 months).....	1,474	1,160

*League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 13.

This analysis of foreign trade shows that Belgium has recovered considerably from the low level during the war but that she is still very far below pre-war standards as indicated by tonnage and by values roughly adjusted to the 1913 basis. There is an increase of 551,000 tons in the 1921 exports over those of 1920, which is 6,612,000 tons for the year, but, according to the annual report of the Consul General for 1921, this was largely raw materials or articles bought elsewhere "and even products the like of which Belgium must purchase abroad in order to suffice the needs of the population." At the same time, her external indebtedness is accumulating rapidly. The trade balance in 1921, though less unfavorable than in 1920, amounted to over 2,900,000,000 francs, an amount nearly three times as large as in 1913. While we have no reliable estimate of invisible items, there is no reason to suppose that they would offset this large amount. An excess of imports is by no means a cause for alarm, if earnings of a merchant marine or interest on foreign investments or tourists' expenditures or remittances of emigrants to families at home are an offset. Nor is it a bad sign if it does not grow

too rapidly and if the extra funds thus secured are being used for internal development and to increase productivity. On this last point there is unfortunately no adequate information.

One final comment should be made regarding Belgian foreign trade. Even more than many other countries, Belgium is dependent on her neighbors. In spite of the late war and the large amount of anti-German feeling that still exists, Germany is an important factor. This is shown by the following tabulation:²

FOREIGN TRADE OF BELGIUM IN 1920 AND 1921 WITH CERTAIN COUNTRIES

(in francs, 000,000's omitted)

COUNTRIES	IMPORTS		EXPORTS	
	1920	1921	1920	1921
Belgian Congo.....	185	110	40	76
Germany.....	943	1,476	1,191	1,171
United States.....	2,279	1,742	315	208
France.....	2,317	1,747	2,526	1,513
England.....	2,184	1,125	1,384	1,280
Holland.....	777	855	1,037	989

The trade with the Belgian Congo is included in this table merely to show that it is relatively unimportant. Belgium's large markets are France, England and Germany. She purchases most of her goods from France, England, Germany and the United States. Belgian purchases in Germany increased from 943,000,000 francs in 1920 to 1,476,000,000 francs in 1921, Germany becoming a strong third with only France and the United States ahead of her. Belgium sells more goods to France, England and Germany than to other countries. Germany's purchases remained almost unchanged in 1921, as compared with 1920, but every other one of the large

² These figures are taken from the *Annual Report of Consul General Morgan for 1921*, Brussels.

countries lost considerably. Belgian trade, both import and export, is to an important extent dependent on conditions in Germany. It cannot well be otherwise, but the conclusion to be drawn from the fact is that an economic crisis in Germany and a considerable decline in Germany's foreign trade will be a very serious blow to Belgium. Every country in the world, but particularly those in Western Europe, will suffer if and when a German collapse comes, but Belgium perhaps the most of all. This is due to her geographical position and her history to date. Her economic structure has adapted itself to the facts of the situation and she cannot escape the consequences of it.

UNEMPLOYMENT

Unemployment in Belgium is less than in England. It was serious in the latter part of 1920 when it was 17.4 per cent of the workers covered by the returns. By the end of 1921, it was only 6.6 per cent and in May, 1922, only 3 per cent.³ Reconciliation of this high percentage of employment with the small output in many lines and the reduced volume of foreign trade is not possible with the information before us. Some critics contend that it is largely explained by the short hours and the "almost insignificant output of Belgian labor," but on this the writer is unable to venture an opinion.

BUSINESS FAILURES

During the first six months of 1920, there were 36 business failures. During the corresponding periods of 1921 and 1922 there were 76 and 122 respectively.⁴ This increase suggests a growing strain but there seems to be no

reason as yet to view it as anything more than an adjustment which is eliminating "irresponsible enterprises started during the boom period."

A fall in prices might produce serious results in Belgium, as in other Continental countries where the price level is still very high compared with pre-war. In Belgium it averaged 366 in 1921 (1914 equals 100). In January of this year it was at this same level—366—but steadily fell until it was 344 in April, a fact which may explain the increase in business failures.

MONEY AND BANKING

Before the war, the gold holdings of the Bank of Belgium were 249,000,000 francs and are now 267,000,000, a slight increase. Note issues of the Bank at the end of 1913 were 1,067,000,000 francs. A considerable part of the increase in note issues since that time is to be explained by the adjustments made necessary at the end of German control over Belgium, when the marks left in circulation were replaced by Belgian francs. Since then, there have been considerable increases in the amount of notes outstanding. They were 4,950,750,000 francs in March, 1920, and 6,320,676,000 francs on April 13, 1922. On October 12, 1922, this had become 6,542,911,000 francs.

At the end of 1913, the government securities held by the Bank of Belgium were 14 per cent of its total assets. By the end of 1921, this percentage had increased to 93.⁵ As in France and Germany the condition of the central bank is closely associated with Government finances.

GOVERNMENT FINANCES

In 1913, the total expenditures of the Belgian Government were 864,945,-

³ Unemployment figures are from League of Nations, *Monthly Bulletin of Statistics*, June, 1922, p. 29.

⁴ *Commerce Reports*, August 28, 1922, p. 581.

⁵ League of Nations, *Memorandum on Central Banks*, p. 23.

196 francs and the total receipts 757,-654,649, leaving a deficit of 107,290,547 francs. The total public debt in 1913 was 4,626,600,000 francs or 623.2 (\$120) francs per capita.

While perhaps less confusing than French public finance, the Belgian post-war situation is very difficult to present. Classifications of budget items make year to year comparisons impossible, but a few facts may be presented with assurance.

The deficit in 1919 was 5,661,392,-000 francs; in 1920, 5,588,746,000 francs; in 1921, it was less amounting to 4,581,689,000 francs and in 1922, the estimate is 1,142,150,000 francs. This decrease is encouraging but less so when we analyze the budget. The following summary is enlightening:

the assignment to this account of 112,-240,000 francs under the heading *Expenses of Occupation* and 433,000,000 francs *Transfer from Reparations Receipts*. Neither of these is a permanent source of income. On the other hand *Extraordinary* expenditures may not persist indefinitely. There is as yet a heavy deficit on *Railroads, Posts, Telegraphs, etc.*, where expenditures are still greater than receipts.

On the whole, one must conclude that until reconstruction work is completed and until a different policy is adopted toward Germany, expenses of reconstruction and occupation will remain high, while debt charges, which are 25 per cent of the total budget, will not decrease, but will instead probably continue to grow. On the receipts,

BELGIAN BUDGET FOR 1922

(in francs)

	RECEIPTS	EXPENDITURES	SURPLUS(+) DEFICIT(-)
1. Ordinary.....	1,891,788,913	2,521,667,899	629,878,986-
2. Exceptional.....	678,790,000	60,182,535	618,607,965+
3. Extraordinary.....	2,600,000	886,293,527	883,693,527-
4. a. Reparations Receipts.....	2,500,870,000	2,285,975,931	214,894,069+
b. Expenditures Recoverable under Treaty of Versailles.....			
5. Railroads, Posts, Telegraphs, Etc.....	1,142,174,956	1,598,700,477	456,525,521-
6. Revitallement.....	101,450,000	107,004,431	5,554,431-
Totals.....	6,317,673,869	7,450,854,800	
Deficit.....			1,142,150,931

Of the six groupings of the budget as given, four show deficits and two show surpluses. There is a deficit of 629,-878,986 francs even in the *Ordinary* account, due largely to the presence there of 1,131,896,087 francs of the total debt charges an item that is increasing rapidly from year to year as the debt grows. The surplus under *Exceptional* has come about through

side, one is impressed with the large fraction of the receipts that come from reparations sources. It is to be remembered that Belgium receives from Germany remittances to cover the costs of occupation and the clearing of private war debts as well as a priority claim on reparations payments. Her budget has been strengthened thereby. The granting of a moratorium to Ger-

many or any other form of cessation of payments would immediately add several billions of francs to the deficit.

But even with all the exceptional and extraordinary sources of income there is a deficit, and a consequent addition to the total debt. This debt on February 1, 1922, stood as follows:

on her debts to foreign governments and cannot do so for a long time to come. In the meantime, a crisis in Germany would weaken her by directly destroying her German markets and by indirectly weakening her markets in other countries where the repercussion would be felt.

BELGIAN GOVERNMENT DEBT, FEBRUARY 1, 1922

(in francs)

	INTERNAL	EXTERNAL	TOTAL
Consolidated	12,662,521,388	1,217,791,377	13,880,312,765
Floating	14,913,944,800	5,453,419,684	20,367,364,484
	27,576,466,188	6,671,211,061	34,247,677,249

The external debt in foreign currencies has been converted into Belgian francs at the rate prevailing at that time. As the franc is now lower, the amount of the external debt would be larger in francs.

CONCLUSIONS

Like that of France, the recovery of Belgium has in many particulars been remarkable. Had space permitted, much could have been said of her progress along many lines not even mentioned. Because of her geographical position, she has developed an industrial organization which cannot suddenly be made over into something different. She still needs to import foodstuffs and raw materials and to export manufactures. For the present, she is like many other countries. Her balance of trade cannot be quickly made a favorable one, nor can she suddenly begin rendering extensive and valuable services to the people of other countries. She is not paying interest

Her price level is still high and any considerable decline would force many failures and, of course, cut off government tax receipts. A default by Germany means an acute problem for the government, which must in some way carry a debt of over a billion francs this year, in any case. If German default means merely the delivery of German promissory notes which can be discounted at the banks and if the funds thus secured are turned over to Belgium, this difficulty is lessened.⁶ That such a pyramiding of liabilities can continue indefinitely is impossible, but how long it can actually be maintained no one knows. It is in any case only a question of time until receipts from Germany will cease, while many expenses, particularly the debt charges, will continue.

⁶ A dispatch from Brussels, dated September 30, states that Swiss banks have discounted at 4 1/2 per cent, 96,000,000 gold marks of German Treasury notes given for reparation payments.

Chapter VIII

THE ECONOMICS OF WESTERN EUROPE

SUCCESSIVE chapters on Italy, France, Germany, England and Belgium have presented a considerable number of details for each country. What generalizations can be made? Is it possible in so complex a situation to generalize at all, either as to troubles or as to correctives?

Certainly it should be done with caution and with the explicit warning that generalization does not mean simplification. It certainly will not mean easy solutions. It is more apt to disillusion us and perhaps make solutions appear impossible.

GROWTH OF POPULATION

The first outstanding fact regarding Western Europe is the rapid growth of the population and its present density. For all Europe the estimated population in 1800 was 175,000,000; in 1914 it was probably 452,000,000. In 1801, the population of Great Britain was 10,500,000 while now it is over 45,000,000. In 1801, Napoleon found 27,445,000 people in France; today, in spite of a relatively low birth-rate for many years, she has over 39,600,000. German statistics for a century are more difficult to present but, in 1871, the population of Germany was 41,000,000, while at the outbreak of the war it was about 65,000,000. Italy grew from 26,800,000 in 1870 to 34,600,000 in 1911, in spite of a very large amount of emigration.

We shall not inquire into causes but accept this growth as a fact, adding that it still continues. In spite of the butchery of the war, the population of Europe has not been reduced in numbers. Its increase has been retarded and millions were killed,

but the natural growth of the population and the check to emigration have more than offset these losses.

How densely people are packed together is a matter of common knowledge. The density in Europe, particularly in Western Europe, is greater than in any other large area in the world.

Such large numbers of people could be gathered together and given even as high living standards as they possess only by altering their economic activities. Applying the inventions of the eighteenth, nineteenth and early twentieth centuries, they gave proportionately less attention to agriculture and more to manufacturing. As we have repeatedly pointed out in our chapters on particular countries, this means a reliance on other parts of the world for food and raw materials and also develops an intense need for markets in which manufactured articles can be sold. Also the growth of factories and railroads has meant large investments of capital in a fixed form.

On the whole, there has been an increase in wealth and in annual income. This income has been derived from a variety of sources. Part of it is local productivity of farm, mine and factory. Western Europe is a hive of industry with a tremendous and greatly diversified economic output. Part of it has been the earnings of great merchant fleets which have carried cargoes to and fro in all parts of the world and have charged the people of all countries to whom such services were rendered. Part of it has been the earnings of her great banks and insurance companies and a part has been the expenditures of tourists from the new world eager to see the scenery and the civilization

of the older countries. As time has passed, the people of Europe have invested heavily abroad, holding, at the outbreak of the war, possibly \$40,000,000,000 of foreign stocks and bonds. These securities entitled them to receive perhaps \$2,000,000,000 a year in interest and dividends.

Such an organization was both complex and delicate and its possibilities have perhaps never been realized by any one. Even with man's rudimentary knowledge of science and his blunders in applying it, the output of commodities and services was enormous. The world's great economic machine creaked and groaned, and lumbered and lurched along, but it worked. Some felt that its operations were becoming less successful as the years passed, but it functioned after a fashion. It was clumsy but its various parts were interrelated and, while changes could be made and, in fact, were always going on, they were painful. The introduction of machinery brought hardships to laborers who lost their positions. A change of fashions often meant temporary unemployment to thousands of people and a considerable loss to owners of machinery suddenly rendered useless. A war in South Africa created a demand for mules that brought prosperity to farmers in Missouri. A threat of war in the Balkans spread its influence from one center to another until a railroad in our middle West could not sell its bonds and so delayed making certain extensions of its line. Laborers were discharged, and retailers, from whom they were accustomed to buy, lost their trade. The world was each year becoming more and more of an economic unit and violent disturbance anywhere was sure to mean trouble.

Into this organization came the war, and at the end an attempt was made

to resume the activity that had been interrupted. Not only once, but many times, our leaders have endeavored to bring us back to something resembling the pre-war standard, but thus far the successes have been few and the failures many.

The causes of the *impasse* are many and are an intricate mixture of economic, political and psychological questions that no one person is by himself capable of analyzing. There are, however, a few of the economic aspects that can be made clear.

First is the fact that the war actually destroyed only a very small fraction of the economic organization of Europe. Terrible as was the slaughter, there is no lack of man power. Railroads, bridges, factories, mines and dwellings were destroyed but they were, after all, only a small percentage of the total and occupied only a small fraction of the entire area of Europe, to say nothing of the world.

In this connection it is to be remembered that the war did not destroy any large accumulations of capital but was fought chiefly out of income. Past accumulations of guns, ammunition, food and clothing formed only a very small part of what was used. Each year's activities during the war were devoted to the creation of what was needed. The war could be fought and was fought with the income of the years during which the war was carried on.

Moreover, much of the accumulated capital that was destroyed would soon have passed out of existence in any case. With minor exceptions capital is quickly destroyed through ordinary use. Every well-managed corporation must maintain its depreciation reserves—set aside each year a fraction of its income for replacement purposes. With a population able and willing to resume its activities, re-

covery can be and is remarkably rapid. Such capital as was destroyed could be replaced in a short time and much of it has been. Reconstruction has made remarkable progress.

With this goes also the reminder that comparatively little of the war burden was shifted to a later generation. The war was fought with the income of the years 1914-18. Because many bonds were issued and much inflation occurred, we find today that many governments, banks, corporations and individuals have made very large promises, and many of them may find it impossible to keep their pledges. But for every debtor there is a creditor—somewhere. The burden passed on by the war is only to a small extent that of paying for the costs or losses of the war. There was a certain amount of destruction but a remarkable amount of restoration has already occurred. Our serious burdens are of a very different kind. One is that of calming our fears of each other. Another is that of finding some way of adjusting certain badly arranged relationships between debtor and creditor. The existence of huge government debts does not mean that the world has not paid for the war. What it means is that during the war and in the post-war reconstruction period, some persons have been willing and able to buy bonds or have been forced to take paper currency. As holders of this paper they have large claims on the community as a whole or on other individuals—claims that are very difficult and perhaps impossible to meet. This does not mean that the war has not been paid for, but merely that in the process of payment, now largely over, there have been brought into existence a mass of promissory notes, more than the

world has ever before seen and more than can ever be paid.

OBSTACLES TO RECOVERY

Obstacles to recovery have been numerous, but four may be singled out for special consideration. They are closely interrelated but may for convenience be presented separately. First is the diversion of trade into entirely new channels. An article in this volume by Professor Mireaux¹ brings out this difficulty very clearly. He refers to the havoc wrought by shifted boundaries—not political havoc but economic havoc. A division of labor had grown up, some sections furnishing others with food supplies and raw materials. Trade, while constantly shifting in direction, had for decades followed certain well-established routes. Those have been changed. New national boundaries have been created and barriers raised to the free movement of goods in the old channels. Former sources of supply have been cut off and old markets destroyed. It would take a considerable period of time, under the most favorable conditions, for commerce and manufacturing to recover their old volume under these changed conditions. But conditions have not been favorable. Nationalistic feeling is intense, tariff walls have been raised, some wars have persisted and others are constantly threatened. A densely populated area with a highly developed sectional division of labor and whose standard of living was dependent on a free movement of labor and commodities is threatened with cold and hunger. Eastern Europe has felt it most but the area of intense suffering is making its way west with Germany next in the list. As yet, there is no force in existence strong enough to check this terrible movement.

¹ See p. 132.

THE WORLD-WIDE ECONOMIC CRISIS

A second factor is the great economic crisis through which the world has been passing. Before it came only a few heeded the danger signals and even a general realization that it was impending could have done nothing but slightly soften the blow. The war period with its prodigal waste and its monetary inflation had two weaknesses. One was that incompetence in business was not quickly eliminated and the other was the creation of obligations (stocks, bonds and notes) in amounts entirely beyond the possibility of settlement.

The crisis came—a recognition by many that the outstanding promises could not be met. Liquidation followed, going far in the United States and England where failures and readjustments were numerous. If other countries had done as much we could feel that the worst of the crisis is over and begin to work our way through the period of depression with more assurance. But, unfortunately, the leading countries of continental Europe have not yet gone through this period of liquidation. Where statistics of business failures are available, they are below normal. It seems certain that the failure of many business concerns is overdue and that any fall of prices (or even stabilization where prices are still rising, as in Germany) will precipitate bankruptcies on a large scale.

From the shock of such a crisis, Great Britain and the United States cannot be spared. They have, to an important degree, corrected their internal problems, but the way is not clear for a forward movement on a sound basis. Unfortunately, this is not clearly perceived, especially in the United States, where we are at present going through a "boom" period which

rests on large bank reserves and an excess of optimism rather than on a healthy business recovery throughout the world. Our troubles are not over and the present upward movement is now progressing with unfortunate rapidity. If there is not a serious reaction it will be surprising and will be in spite of the unsound situation in Europe.

INTERNAL INDEBTEDNESS

Throughout our chapters on special countries, we presented two sets of facts. One was the extent to which productivity had been restored. Everywhere agriculture and manufacturing have made gains but everywhere in Europe they seem to have been definitely retarded, and, in many instances, stopped completely. Agriculture and some lines of manufacturing show a considerable amount of recovery but other lines are making less progress. This is especially true of iron and steel and the other industries that are closely identified with them, industries whose relationship to war and to large scale business, during peace, is particularly intimate. The closer the relationship to other lines of business, the greater seems the trouble. To this there are perhaps exceptions, but the more deeply involved that industries or countries have become in the world-wide division of labor, the greater the suffering in a time of crisis.

But all of the countries mentioned and all of their industries are also affected by the demoralization of finances. Wherever we could find sufficiently reliable data we have found that the corporations have issued stocks and bonds to an amount far in excess of their ability, particularly if prices should fall. Private financing is in a very weak position.

Everywhere on the Continent the

commercial banks are facing serious problems. When we analyzed their reports we found that their deposit liabilities expressed in monetary units (francs, marks, etc.) had greatly increased but that when allowance was made for the higher price level their deposits were in some cases less than pre-war. In France these deposits, as thus corrected, were at the end of 1920 only 67 per cent of pre-war, in Germany 60 per cent, and in the United Kingdom 97 per cent. In Italy, however, they were 137 per cent.²

These figures are for the end of 1920 and there may now be a change for the better, although it seems improbable since so large a fraction of the funds in each country have been demanded by government financing. More serious are the facts that the demand liabilities of the banks are so large as compared with the total assets and that the margin of safety for depositors is so slight. As was to be expected this problem is more acute in Germany than in the other countries mentioned.

The central banks which perform numerous functions are caught between two demands, those of private business especially as presented through the central banks, and those of their respective governments. If a further crisis develops, the demands on them for rediscounts will be increased. As government financing continues to present difficulties, they are called upon for aid in that direction also.

How far this has involved the leading central banks is shown in the following statement, giving the percentage of government securities loans and advances as percentages of total assets for three separate dates.³

² League of Nations, *Memorandum on Currency*, pp. 11 and 12.

³ League of Nations, *Memorandum on Central Banks*, p. 23.

LEADING BANKS—PERCENTAGES OF GOVERNMENT SECURITIES OF ALL TYPES TO TOTAL ASSETS

BOOKS	END OF 1913	END OF 1918	END OF 1921
German Reichsbank.....	19	..	99
Bank of Belgium.....	14	81	93
Bank of France.....	8	81	84
Bank of Portugal.....	49	77	79
National Bank of Greece..	35	12	61
Bank of Italy.....	12	63	41
Bank of England.....	29	54	35
U. S. Federal Reserve Banks.....	..	10	12

There are a few omissions in this table but the general picture is clear. The central banks are so heavily involved in government financing that for several of them there is no escape. Their ability to meet their own obligations is completely dependent on the state of government financing.

But government financing is in a very bad condition. In Germany, we found it getting worse in every particular. In Italy, France and Belgium, deficits are each year growing less but they have not disappeared. Nor are there good reasons for expecting them to disappear in the near future. In Belgium, the deficit will immediately increase if (or rather when) payments from Germany cease. In all three of these countries, debts, and, consequently, fixed charges are growing. Floating debts are huge and becoming larger. If confidence should suddenly disappear, not only could additional amounts of securities not be floated, but outstanding issues as they mature could not be paid off by the offer of other bills in their place. It will mean default or reliance on the central banks for aid. There can be little doubt as to what will be done. The central banks will give aid as did the Bank of Germany and with

similar results. There will be further issues of paper money, higher prices and more distress.

How rapidly the difficulties are accumulating, we have stated for each country examined. How far it can go before the note issues will again be poured out freely in Italy, France and Belgium we do not know. We may be wrong in our belief as to the future but the tendencies are clear. How rapidly debts increased from 1920 to 1921 in certain countries is shown in the following table:⁴

CHANGES IN GOVERNMENT DEBT FROM 1920 TO 1921
PERCENTAGE OF INCREASE

COUNTRY	PER CENT INCREASE	COUNTRY	PER CENT INCREASE
Switzerland.....	7.70	Czecho-Slovakia.....	18.37
Norway.....	8.06	Bulgaria.....	18.47
Netherlands.....	8.23	Denmark.....	22.67
Italy.....	11.90	Greece.....	35.64
France.....	13.38	Germany.....	51.42
Belgium.....	16.93		

THE PRICE LEVEL

Conditions are maintained even as they are only because prices are being held at a relatively high level. If prices fall, debtors cannot meet their obligations.

In the days immediately following our Civil War, prices were high not only in the United States but throughout the world. A western farmer with wheat selling at a high price per bushel, (say \$2.00) did not hesitate to mortgage his farm for \$10,000 at 6 per cent. He was confident that it would take only 300 bushels of wheat per year to pay the interest and less than 500 bushels per year to accumulate a fund to apply on the repayment of the

principal, a total of less than 800 bushels per annum. In ten years the mortgage could easily have been paid off. Unfortunately for him, prices fell after 1873. When wheat sold at \$1.00 per bushel it took not 800 bushels but 1600 bushels per year to pay the debt. Many of us remember the failures, the foreclosures, the bitterness, the attempt to check the price fall through issues of paper money and by return to bimetallism.

In Europe today the situation is similar, but far worse. Debts have

been freely contracted at a time of high prices. A decline in prices means failures—default on interest and, in time, repudiation of principal. Is there any possible way of avoiding the distress that such an outcome would bring and the shock to business that would follow it? Such a catastrophe would make a further check to business inevitable. No matter how clear our vision nor deep our sympathies, the consequences would be serious.

Unfortunately, it is hard to be optimistic. A fall in prices means wholesale bankruptcies. On the other hand, the present signs point to further inflation as the next step—a further rise in price to be followed ultimately by a collapse more serious than if it occurred now. Stability seems im-

⁴League of Nations, *Memorandum on Public Finance*, p. XIX.

probable and doubtless it is impossible. In any case there is much to be gained by the speedy elimination of weak business concerns whose continued existence is due solely to the delay in readjustments.

One specific plan, and one only, has been put forward. We mean only one that has in it sufficient merit to warrant its presentation here. When political difficulties become acute, our statesmen often seek relief in a "formula." A blow is often softened if a satisfactory name or phrase can be used to designate it.

Such a formula has been proposed for Europe and is known as "devaluation." Our survey shows the impossibility of debts being met by the payment (say in Italy) of lire of the pre-war sort. The lira is merely a lump of gold weighing 4.48036 grains, nine-tenths fine or pure. Promises in Italy are so huge and so involved that debtors cannot acquire sufficient gold or its equivalent to meet their obligations if each lira of the debt, as it now stands, is to be the same amount of gold as in pre-war days. Italian debtors are in a much worse position than the western farmer of our illustration.

If, however, it should be decided not to attempt a restoration of the lira to the pre-war value (which was the equivalent of 19.3 cents) but to stabilize it at some other level nearer its present value (say at 5 cents) there would be an important measure of relief. It is argued by many that this is in effect a repudiation of promises understood by many creditors to mean payment in lire of pre-war value. That is doubtless true but many of them will, in any case, never receive what they have hoped for. Moreover, even if we should acknowledge that this would be repudiation, the shock would be lessened

just because a new word has been used to describe it. It may be camouflage but for a worthy end. Even camouflage has at times much to commend it.⁵

However, there seems to be no probability that such a device will be adopted. Even many experts oppose and it could not well be put into effect without a large measure of public support. The writer has made numerous inquiries on the point but the only sign of agreement has been that a very few experts have expressed a willingness to recommend the plan for their own countries in case other countries adopt it at the same time. This need not be expected at present.

INTERNATIONAL INDEBTEDNESS

The last phase of the problem we shall present is international indebtedness. Huge claims are held by certain countries against other countries. The Allies claim reparations from Germany. Some of them have advanced large sums to others and many of them are heavily indebted to the United States Government.

It is frequently argued that large internal indebtedness is not a burden on any country; that debts from one Frenchman to another or by government and banks to bondholders, note-holders and depositors is not a strain on the country; that settling these claims is like taking money out of one pocket to put into another. This is not entirely correct and for at least two reasons. One is that the collection of these claims means a redistribution of the income and may injure the country as a whole. Bondholders,

⁵ Devaluation has been urged strongly by J. M. Keynes (*Manchester Guardian Commercial*, Reconstruction Supplement, Number One, p. 3, and by the *Report of the Second Commission (Finance) of the International Economic Conference at Genoa, April-May 1922*.

for example, may gain too much at the expense of the taxpayers who are often not the same persons.

The other reason is that the operations involved are a heavy burden on the country's financial machinery, as, for example, that of the government. Internal payments, say in France, may be transferring money from one pocket to another, but the amounts involved are so huge that many people question the capacity of the French Government to do it. In other words, the government credit is weakened. It probably cannot devise ways of reaching into one set of pockets—those of taxpayers—in order to get the funds to be put into the pockets of bondholders.

But external payments, at least in outward appearance, present a harder problem. To an important extent, economic organization is along national lines and certain groups of people, say the Germans, living in an area known as Germany, are called upon to pay large sums to the people of another area. The task is twofold. The first is to devise a way of reaching into Germans pockets for funds to be transferred to French, Belgian, English, Italian and other coffers. The second is to transfer large quantities of commodities or services from Germany to other countries.

This means a sudden upheaval in the usual lines of trade, an adjustment so great as to be literally an economic impossibility. With time, with patience and with clear thinking on the question, Germany could have paid large sums—how large the writer does not know. Estimates have been made from time to time but the potential economic capacity of every country is so enormous that estimates are difficult. Similarly, there is no reason to doubt the capacity of some of the other countries to make very large external payments if sufficient

time is allowed and if all conditions are favorable.

But these qualifications are very important and are often ignored. The financial needs of certain creditor countries—notably Belgium and France, have been so acute that they would not wait and have been pressing their claims on Germany. Tax rates are high in England and the United States and the people of those countries also are impatient. Time has not been allowed for the adjustments that would have increased the capacity of the debtor countries.

Nor have other conditions been favorable. All, or nearly all, of the countries concerned, both creditor and debtor, were weakened by the war, and have been going through a severe economic crisis. Many have faced tariff barriers erected by the others, all must reorganize their internal finances and all have been affected by internal political difficulties and by an intense nationalistic spirit that has opposed concessions to other countries. Some also have economic problems of a persistent sort to overcome. We have noted these especially in Great Britain and Italy.

Time, patience, and a very high degree of intelligence have been needed. But time has not been allowed to Germany and only the United States and Great Britain have exhibited much patience. A clear grasp of the economic intricacies involved either has been lacking or could not be utilized. As a result, economic capacity has improved but little among the debtor countries, and in some has positively declined. This has gone so far and become so serious that the creditor countries have more to lose by pressing their claims against the debtors than by compromising on them. It would be far better to cancel them entirely if, by so doing, trade could be revived.

It would be much better to have a readjustment of relations between debtor and creditor than a continuance of the present situation. If present tendencies are not checked by drastic measures of some sort, conditions will become worse instead of better.

THE PROBLEMS OF THE CREDITORS

Our viewpoint thus far has been that of the debtor countries whose problems are so acute. But there is another phase of the question that is fully as important. Can creditor countries afford to collect?

Reference is often made to the payment by France of the indemnity to Germany in 1871 and to the promptness of the settlement. The quickness and apparent ease of that enormous transaction is viewed by many as proof that Germany could now readily pay a much larger amount. Doubtless the Germans could have done better had they been anxious or even willing, but the illustration from the war of fifty years ago is not a good one. That war was short and France was not economically exhausted. France was compelled to purchase German marks, or their equivalent, and could do so by selling her holdings of foreign securities and by a very great increase in her exports of commodities. In our chapter on Germany, we have noticed that these means are for the most part not available to Germany today.

But did Germany gain by receiving so huge a payment in so short a period of time? Probably not. Germany certainly suffered severely from the crisis of 1873 and during the depression that followed. The rest of the world also suffered but the indemnity paid by France did not ward off the crisis in Germany and many students believe that France in the long run gained more from the payment than did Germany.

How can this be true? At first thought it seems impossible that a creditor might suffer through collection from a debtor. Are not payments of debts welcome? Do they not add to the comfort and prosperity of the persons fortunate enough to receive them?

Two facts must not be overlooked. It cannot too often be pointed out that the economic world functions today through a very highly developed division of labor. The capital of Lancashire, England is machinery built for the manufacture of cotton goods. The raw cotton is imported from other countries and highly skilled British labor using specialized machinery changes the raw material into yarn and cloth.

Next it must be remembered that payments by a debtor country must not only be transmitted in the form of goods and services but that payments are not general and vague. They are particular and specific. What Germany sends to England is not goods in general. It is something very definite and particular as, for example, cotton fabric gloves or optical instruments or dolls. Or, perhaps, it is an offer to carry wheat in German vessels from Argentine to Belgium at a lower freight rate than British vessels can afford.

Put in this way, the paradox is explained. British economic organization (like that of all other industrialized countries) has become highly specialized. The appearance of German cotton goods in Great Britain to be sold there at low prices means that many British cotton manufacturers must face heavy losses. Some would doubtless shut down, many workers would be discharged and distress would increase. Given plenty of time and a willingness to make the changes, the British cotton manufacturers could

gradually adapt their capital and labor to other work. Changes of this sort are constantly taking place in the world but the more suddenly they come the greater the hardship. After they are over, the community is often better off than before. It is a question of balancing the long run gain against the immediate hardship.

What does such a balancing of gain and loss indicate today? The amount of commodities (and services) demanded by creditor countries from debtor countries is so great that if deliveries were possible and were immediately commenced, the effects on the creditors would be disastrous in the extreme. Failures would be numerous, unemployment and distress would be far, far greater than anything we have ever experienced. The immediate suffering would be very, very great.

But how about the long-run gain? Here too, there is a difficulty. Payments from Germany would continue for say thirty years and then abruptly cease. Immediately, another readjustment would be needed.

These shocks are too serious. They mean price fluctuations, irregularity of employment and business failures. One of the greatest tasks of modern times is the introduction of more regularity into business. These payments, if made as planned, would greatly increase the problem. Unless the transition can occur somewhat gradually it would be better to forego the payments altogether.

Selfishness and shortsightedness has dictated the imposition of many high tariffs in the last few years but there is something to be said for the movement. Although they have not often been intelligently planned, they might be so arranged as to soften the shock of a transition period. The same may be said of the refusal of the Allied countries to accept all the ships offered by Ger-

many on reparations' account and of the attitude of England toward large deliveries of German coal in the French market where British coal had formerly been sold in large quantities.

FOOD SUPPLIES FOR EUROPE

Western Europe is today a great economic machine weakened by a war and then suddenly asked to function in a greatly altered manner. Added complications have been the creation of huge debts, wildly fluctuating price levels and demands that debtors make immediate large payments to creditors—payments that have to some extent been refused when offered.⁶

But, in the meantime, what about the dense population of Western Europe? Some of them are busy, as in Germany, but are seriously short of food. Others, as in England, are suffering from unemployment but the country is still importing as much food as in pre-war days.

The United Kingdom, Germany, Holland, Belgium, Italy, France and others regularly import food. Their own crops are still below the pre-war level, and some, as Germany, have had unfavorable crop weather in 1922. At the same time, the usual sources of supply have failed, not because of the devastation of the war that ended in November, 1918, but because of forces, some of which were let loose by the war, while others are even more deep-seated.

Eastern European supplies of food-stuffs are gone, at least for the present.

⁶ One statement of the predicament is found in a protest of the Paris Chamber of Commerce against the Wiesbaden agreement, as quoted in the *Economic Review*, February 17, 1922, p. 286: "although offering certain financial advantages, it (the Wiesbaden agreement) will only increase the disabilities from which certain French industries are now suffering, it will diminish French production and offer a premium on German exports."

One writer⁷ declares that for Europe, excluding Russia, the average annual output of the years 1919-21 as compared with the average for 1909-13 was less by 270,430,000 bushels of wheat, 242,910,000 bushels of rye, 112,070,000 bushels of barley, 425,462,000 bushels of oats and 110,230,000 bushels of corn. He finds the explanation in the break up of the large estates and in the changed psychology of the European farmer.

Whatever the causes, there is ground for grave concern. The dislocation

of economic life has brought tragedy to Eastern Europe. As yet the movement is not checked but is making its way westward. Austria is the most recent of the acute sufferers to come to our attention and unless the usual signs are not to be trusted, Germany is next. Our analysis has shown the weakness of still other countries. What steps have been taken to meet the peril and what progress toward an adjustment has been made? Finally, what is the position of the United States and what should be her attitude?

Chapter IX

ATTEMPTS AT SETTLEMENT

THE difficulties in the way of a settlement should not be minimized. Obstacles to an adjustment are psychological and political as well as economic. In fact a complete analysis would compel the wise men of the world to introduce all the "ologies" there are. Some of the forces at work are deeply implanted in human beings through ages of biological inheritance. Some are the result of political, educational and general social environments that are themselves the product of decades, or centuries of development. Philosophy, race, religion, national aspirations and personal ambitions are involved. All the forces and influences that affect the behavior of human beings as individuals and as groups must be included.

That agreements have been hard to secure, that decisions finally reached have over and over again been brought

up for reconsideration and that reversals of policy have often occurred should not be surprising. That similar harassing changes will occur from time to time in the future may be expected. Our leaders are remarkably like the rest of us in their strong and weak points. Since they have accepted the responsibilities of leadership they must be held to account but our criticisms should be tempered by a realization of the difficulties of their tasks and by the certainty that no one could have evolved a solution that would have been generally acceptable.

WHAT HAS BEEN ACCOMPLISHED

A survey of the post-war period is apt to be discouraging. Our preceding chapters and the current news despatches encourage pessimism. Actually there are a few reasons for encouragement even though our general position may, on the whole, lack optimism.

So many statements have been made of the work of the Peace Conference and of the other attempts at an adjustment that we are not warranted

⁷ Alfred P. Dennis, "Special European Representative of the United States Department of Commerce," *The Saturday Evening Post*, August 26, 1922. For a particularly good analysis, see also "Agriculture in Eastern Europe" by E. Dana Durand, *The Quarterly Journal of Economics*, February, 1922, page 169.

in giving many details here. This is particularly true of all but the most recent events, and we shall accordingly content ourselves with a brief summary of the earlier developments.

More attention will be given here to the question of reparations than to other matters. It has been and still is the cause of much controversy and is inextricably bound up with the whole question of intergovernmental indebtedness with which we are so vitally concerned.

The Peace Conference did not determine the aggregate amount of reparations to be paid by Germany, but left the amount and the manner of payment to be determined by a body known as the Reparation Commission. After extended discussions, many of them acrimonious, the amount and terms of payment were embodied in an agreement signed by Germany in May, 1921. That agreement is still nominally in effect, although numerous modifications in its execution have been permitted.

In preceding chapters, we have not raised the question of justice and shall not do so now. East of the Rhine there is a large body of intelligent people firmly of the opinion that the Treaty of Versailles and many other later decisions are grossly unjust. In France, Belgium and other countries are many equally intelligent and conscientious persons who are quite as emphatic in their belief that the terms imposed upon Germany fall far short of what justice demands.

Our concern at present is with these states of mind and with the economic possibilities. For over fifty years the French have been remembering the Franco-Prussian War. To this has now been added the hostility engendered by the recent conflict, bitterness over invaded and ravaged territory, fear that Germany may in

the future launch another attack, desperation over failure to receive expected reparation payments and alarm over financial problems. In Germany there is no such recognition of guilt as her conquerors insist upon. And yet if the writer's observations during the last summer can serve as a guide, there is no bitterness toward most of the former foes. But toward the French and the Poles there is an intense and growing resentment. Indignation at the large amount of reparations demanded, criticism of the costs of maintaining foreign troops in the occupied area, resentment over the presence of colored soldiers even when their conduct is not questioned, allegations that the League of Nations is merely carrying out the wishes of an imperialistic France,—these and like sentiments are the ones frankly expressed. To say that many of these views on both sides are unreasonable is to miss their significance. Why should one expect the people of France and Germany to be reasonable today? Only to a small degree are any of us ever reasonable and it is a poor social scientist who proceeds on the assumption of rational conduct.

M. Gabriel Hauotiaux has recently written:¹

And, above all, calculations must take account of sentiments as sentiments must take account of calculations. These and those co-exist; man is the product of them all; that is why politics is so difficult an art. If the politics of the present day is equal to its high task, it must admit that economic reasoning is not the only, or even the principal determinant of its action; it should even distrust it; for the great weakness of economic metaphysics is that it has no soul, and lacking a soul, it lacks Humanity.

¹ "Economic Metaphysics," *Manchester Guardian Commercial*, "Reconstruction in Europe," Supplement Number Two, May 18, 1922, p. 66.

One does not assent to all of the above when he agrees that human behavior is seldom the result of careful calculation. But to this concession he may add that one function of the economist is to indicate the price that must be paid when emotions control action. That both French and Germans are today unreasonable may be conceded or even expected; that they will continue to be unreasonable may be assumed; that they may in time moderate their emotions as the consequences are more fully appreciated may be hoped.

THE REPARATIONS AGREEMENT OF MAY, 1921

Prior to the agreement of May, 1921, estimates of the amount Germany should, could or would pay were numerous. Most of them were presented by irresponsible persons and many were fantastic. Some were worked out with considerable care and others were merely the expression of the emotion (and in some cases the greed) of their authors. Usually, they were based on the belief that the total should be related to the damage charged against the Germans rather than to their probable capacity to make settlement.

By May, 1921, feeling had moderated somewhat and the amount demanded was much less than many had previously named. Germany was called upon to make two kinds of payments. The first was a cash payment of 2,000,000,000 gold marks per annum and the second was a sum equivalent to 26 per cent of the value of her exports. These payments were to be continued until Germany should have redeemed certain bonds with a face value of 132,000,000,000 gold marks.

These bonds all bore interest at the rate of 5 per cent per annum and

called for an additional one per cent to be paid into a sinking fund for redemption of the bonds by annual drawings at par. The bonds were divided into three classes, A, B and C. The A bonds amounted to 12,000,000,000 gold marks, and were to be delivered to the Reparation Commission by July 1, 1921. The B bonds amounted to 38,000,000,000 gold marks to be delivered to the Reparation Commission by November 1, 1921. The C bonds amounted to 82,000,000,000 gold marks and were also to be delivered by November 1, 1921, but with this provision. Unlike the A and B bonds they were to be delivered without interest coupons attached and were to be issued by the Reparation Commission "as and when it is satisfied that the payments which Germany is required to make in pursuance of this schedule are sufficient to provide for the payment of interest and sinking fund on such bonds."

Several facts need to be noted. First is the total amount, the face value being 132,000,000,000 gold marks or about \$33,000,000,000. The significance of this amount depends in part on its size and in part on the period of time during which the payments would be continued. The present worth of \$33,000,000,000 to be paid at some distance in the future is far less than the face amount.

The real burden is to be found in the annual payments which were to be 2,000,000,000 gold marks plus an amount equivalent to 26 per cent of the German exports. This second item was apparently expected to yield about 1,000,000,000 gold marks per annum. Since the A and B bonds together totaled 50,000,000,000 gold marks (\$12,500,000,000) the 6 per cent charge (5 per cent interest and one per cent sinking fund) would be 3,000,000,000 gold marks (\$750,000,-

000). There was to be a cash payment of 2,000,000,000 gold marks (\$500,000,000) so the remaining 1,000,000,000 gold marks (\$250,000,000) was clearly expected to be the yield from the tax on exports. As this tax was 26 per cent of the total, it was evidently anticipated that the exports would amount to almost 3,850,000,000 gold marks (\$960,000,000). It also implied that there must be an annual balance of exports over imports sufficient to yield the total annual payment of 3,000,000,000 gold marks, except in so far as this could be met by surrender of property and by certain "invisible items" such as the earnings of the merchant marine. That such payments were impossible our analysis in Chapter V has made clear.

A second feature of very great importance was the division of the bonds into three classes, A, B and C. Only the A and B bonds, totaling 50,000,000,000 gold marks, were to be issued at once, that of the C bonds being postponed. This arrangement meant that in addition to the annual burden of 3,000,000,000 gold marks there was the possibility that an additional 4,920,000,000 gold marks per annum (6 per cent of 82,000,000,000 gold marks) would be demanded as soon as capacity to make larger payments was demonstrated. Needless to say this was not the sort of arrangement that would encourage payments of the first 3,000,000,000 gold marks even had such payment been immediately possible.

It is interesting to notice that the A and B bonds combined total 50,000,000,000 gold marks or about \$12,500,000,000, an amount not far from that said to have been urged by the American delegates at Paris and from the calculations of J. M. Keynes. In fact, many critics have contended that at least some of the Allied states-

men at no time supposed that the C bonds would ever be issued. They could be included in the published announcements swelling the total to the impressive 132,000,000,000 gold marks which was sure to bring the support of public opinion, particularly in France, Belgium and England and at the same time conceal the fact that there had actually been a very great reduction in the demands on Germany.

The illusory nature of these C bonds should not be forgotten and will be mentioned again. In the meantime, we may notice that the market value of the A and B bonds was slight. None have been offered on the market nor has Germany kept up her payments as required by the terms of the agreement.

What Germany's actual capacity was it is not possible to say. All the estimates that have been made have been based on numerous assumptions such as the willingness of other countries to take German exports. That she could not pay even the burden of the A and B bonds seems entirely clear when the facts presented in Chapter V are remembered. That she did not pay any large amount is a matter of record.

Troubles developed rapidly. The A bonds were delivered by July 1, 1921. Payments were scheduled to start as early as in May and were to be made from time to time as specified in the Treaty. A glance at the chart showing exchange fluctuations² shows that Germany's credit abroad weakened disastrously in the fall of 1921 soon after payments were started. There had been a downward movement from March on but it had been slow until July when it became more abrupt, a low point of one and one-half per cent of dollar parity being

² See above, p. 15.

reached late in November. Whatever the cause the effect was startling. The lower the external value of the mark, the more paper marks it took to buy the gold marks demanded under the schedule of payments. This meant that the German Government must either tax or borrow to secure the funds.

Germany's government, after the war and the subsequent revolution was necessarily weak. Whether it did its best we do not know. That it made attempts and that it encountered vigorous opposition are facts beyond doubt. The Wirth Government took the view that the demands were impossible of fulfillment but that the best way of demonstrating the fact was to make a sincere attempt. The opposition argued that it was better to refuse flatly.

One difficulty was inevitable and created a vicious circle of troubles. Payments were due on certain dates. Additional taxes can be provided in any country only after the enactment of appropriate legislation and the creation of the necessary administrative machinery. This is particularly true if the taxes are of a new sort and not merely higher rates for taxes already in use. These preliminaries take considerable time even under the most favorable conditions but conditions in Germany were all of a sort to encourage delays. In the meantime, payments could be made by the Government only by borrowing. No market, at home or abroad, could have absorbed so much by immediate saving, so borrowing from the banks was necessary and that meant inflation. We have already shown above the increase in note issues and government debt. But these meant inflation—in fact were inflation.

Consider what this meant. Inflation meant higher prices internally. It meant that ordinary government

expenses went up by leaps and bounds and thus created budget deficits that had to be met by further loans and hence more inflation followed by still higher prices, larger deficits and more loans. Such a situation internally weakened German credit abroad and forced a further fall in German exchange thus making it necessary for the German Government to acquire more and more paper marks with which to buy the gold marks needed for the reparation payments. How could tax legislation keep up with such a movement? Legislation to raise any given amount would be inadequate before its passage and far more so by the time it could be administered. By the time a forced loan (which was passed by the Reichstag in July, 1922) to raise 70,000,000,000 paper marks can become effective, the sum called for is entirely inadequate. It was planned in the spring of 1922 when the mark was worth about one-third of a cent. On November 2, the mark was worth about one fifty-seventh of a cent or only a twenty-ninth as much. To accomplish the same result in external payments as had been expected from the loan of 70,000,000,000 paper marks, a loan of over 2,000,000,000,000 would now be needed. How much will be required a little later when these words appear, it is useless to guess.

Before the end of 1921, it was clear that the payments as demanded could not be maintained and in January, 1922, the Reparation Commission after the conference held at Cannes granted a provisional delay to Germany on the payments falling due on January 15th and February 15th. Germany was required to pay 31,000,000 gold marks every ten days, the first payment to be made on January 16th. She was directed to submit to the Commission within a fortnight a plan for reforms or for

appropriate guarantees for her budget and paper currencies. Also she was invited to attend an economic conference at Genoa, the conference whose sessions started on April 10th, and lasted until May 19th. At this Genoa Conference, the question of reparations was excluded from the discussions in accordance with an agreement between the British and French premiers held at Boulogne early in March.

The German reply to the demands at Cannes was evasive but in February a provisional agreement was reached by which Germany was to make an annual payment of 720,000,000 gold marks in cash and 1,450,000,000 gold marks in kind, a total of 2,170,000,000 gold marks. This may be contrasted with the agreement of the preceding May which called for an annual payment of 3,000,000,000 gold marks in cash. In the meantime, the payments of 31,000,000 gold marks every ten days were maintained.

In March the Reparation Commission finally gave formal assent to a partial moratorium, the payments each ten days having hitherto been provisional and tentative. The assent was accompanied by a demand that Germany raise 60,000,000,000 paper marks in additional taxes; float an internal loan to balance her budget; stop the exportation of capital; make the Reichsbank independent of the Government; radically reduce expenses; submit to a system of supervision through obligatory consultation with a committee on guarantees; and either to float an international loan or to make a levy on capital for reparation payments. To this Germany promptly objected, declaring it was impossible to raise the taxes and declining the suggestion of guardianship by a commission. In the meantime, a demand from the United States that the expenses of our troops

in the occupied area (amounting to \$241,000,000) be met from the German payments had created consternation among the European Allies.

The Genoa Conference was held without appreciable effect other than that of getting former foes together in a conference and of forcing all concerned to face more definitely than before the economic realities in Europe. In informal discussions experts could frankly exchange opinions and agree on carefully worded reports but reparations and treaty revisions were rigidly excluded. The delusions were still adhered to and the conference adjourned with little to show for the time and effort expended.

In June Dr. Walter Rathenau, German Minister of Foreign Affairs, was assassinated. The mark fell still more, and early in July Germany requested a moratorium on reparation payments for the remainder of 1922 and all of 1923 and 1924. In June the Committee on Guarantees² had gone to Berlin for the purpose of investigating carefully the condition of the German Government. Their report has not been made public.

In reply to the German request for a moratorium, which was dated July 12th, the Reparation Commission on July 13th contended that reparation payments had been "only one and not the most important of the causes of the present depreciation of the mark and that stability can only be definitely reestablished if the financial reforms which the Reparation Commission has for a long time demanded are immediately put into force."

After an extended discussion and numerous delays, accompanied by many threats, the British and French premiers met in London early in August. The Conference was a failure.

² Established by the Reparation Commission under the agreement of May, 1921.

Further negotiations between the Reparation Commission and the German Government resulted, on August 31st, in the allowance of a moratorium on the August 15th and September 15th payments, a delay which may if necessary be extended through December 31st. In lieu of the cash as due the Reparation Commission accepts, "German Government six months' treasury bills, payable in gold and guaranteed in such manner as may be agreed upon between the German Government and the Government of Belgium (to which power the payments have been assigned), or, in default of such agreement, by the deposit of gold in a foreign bank approved by Belgium."

These notes were delivered, Belgium accepting the guarantees offered by the German Reichsbank. One report has it that the notes thus guaranteed were discounted at Swiss Banks. At the time this is written there is under discussion a conference to be held at Brussels in November to consider German reparation payments and inter-allied debts. Also it has been decided that the Reparation Commission is to go to Berlin for a conference with the leaders of the German Government, and it also is proposed to place German Government finances under the direction of outside experts.

CAUSES OF THE DIFFICULTIES

Why should the Reparation Commission take such an attitude? At one time its orders to Germany are exacting and stern—later it grants a moratorium, accepting in lieu of actual payment further promises from a government whose outstanding obligations are so enormous that at the most only a small fraction of them can ever be met.

The first difficulty of the Commission has been that it was entrusted with

the performance of an impossible task. How and why it was impossible our earlier chapters have explained.

Second is the fact that the Commission has never been free to exercise its own judgment in the solution of problems. It is not to be supposed that its able membership and its staff of skilled experts have been deluded regarding Germany's capacity. Behind the members of the Commission have been their respective governments, each with its own acute problems, some of which we have outlined. Most acute have been those of France and Belgium, especially the former. These problems are actually insoluble, at least in the usual sense of the word. Certainly the various governments will not be able to meet their obligations in monetary units of the old value. Harassed and tormented the governments have refused to face the unpalatable facts and have been driven from one unfortunate position to another.

In the meantime what is the aggregate of Germany's payments on reparation account?

Comparable statements are hard to secure partly because the same items are not always included. Then, too, the disputes are interminable over the value of payments in kind, especially deliveries prior to May, 1921. Perhaps the best that we can do is to present on page 123 without comment a statement prepared by the United States Unofficial Delegation on the Reparation Commission, dated August 23, 1922. It gives the deliveries in kind and cash payments made by Germany from November 11, 1918, to May 31, 1922.

REPARATION PAYMENTS AND THE DEBTS TO AMERICA

Among the proposals for settlement presented in Europe from time to

UNITED STATES UNOFFICIAL DELEGATION REPARATION COMMISSION
Statement of deliveries in Kind and Cash Payments made by Germany from November 11, 1918 to May 31, 1922
(Gold Marks)

	NOV. 11, 1918 TO MAY 1, 1921		MAY 1, 1921 TO MAY 31, 1922		TOTAL	CESSIONS OF IMMOVABLE PROPERTY TO BE DEBITED DEFINITELY OR PROVISIONALLY
	Cash	In Kind	Cash	In Kind		
United States.....	637,599,000 :	297,246,000	884,000 :	128,721,476 ¹	1,062,682,476	Shameen concession: 538,000
Great Britain.....	140,307,000 :	982,696,000	2,147,000 :	250,660,329	1,371,516,329	Shanghai: 2,042,000 Saar: 300 million
France.....		556,674,000	722,751,000 :	73,634,977	1,353,059,977	Eupen Malmedy: 635,000 *
Belgium.....		83,975,000		87,750,237	171,728,237	Kien Chow: 59,000,000
Italy.....		8,965,000		12,695	8,977,695	
Japan.....		5,315,000		1,596,127	6,914,127	
Greece.....		4,536,000		5,607,966	10,143,966	
Roumania.....		82,000		57,679,036	57,761,036	
Serb-Croat-Slovenes.....		6,845,000		7,751,620	14,596,620	
Czecho-Slovakia.....		14,705,000 *			14,705,000 *	
Poland.....						
						State property and Loans: 6,031,000
						State property and Loans: 1,730,582,000
						Dantzig: 305,514,000—Property: 300,000,000
						Loans: 5,514,000

Coal supplied to Luxembourg from the beginning, namely, September 19, 1919, to May 31, 1922: 43,641,241.87
Dyestuffs supplied to the Textile Alliance from the beginning up to May 31, 1922: 4,126,262.09

¹ Figures not yet available.

² Receipts from remitted sales of converted war material and sums advanced from Schedule of Payments account.

³ Under R. C. Decision 1455.

⁴ Armistice rolling stock.

⁵ Exchange gains on guaranteed Sterling.

⁶ Exchange gains on guaranteed Francs.

} These sums represent credits and are deducted in order to produce the results shown in the total column.

Coal Advances and Army Costs from November 11, 1918 to April 30, 1922

	COAL ADVANCES		ARMY COSTS FROM NOV. 11, 1918 TO APRIL 30, 1921		ARMY COSTS FROM MAY 1, 1921 TO APRIL 30, 1922		TOTAL
United States of America.....			1,155,774,000		63,760,000		1,219,534,000
Great Britain.....	93,871,000		1,091,067,000		94,006,000		1,218,974,000
France.....	238,771,000		1,275,582,000		224,472,000		1,798,831,000
Italy.....	20,684,000		10,682,000				31,366,000
Belgium.....	30,520,000		194,599,000		41,138,000		266,257,000

time are several that have taken into account our heavy claims and have proposed an adjustment in which we would be included. Three call for special comment.

One was prepared in the spring of 1922 and put forth by Sir Robert Horne, Chancellor of the British Exchequer. The essence of this plan was that it reduced the German liability to 110,000,000,000 gold marks and divided it into two parts—non-contingent and contingent. The first was 45,000,000,000 gold marks, the A and B bonds in the May, 1921, settlement less an allowance of 5,000,000,000 marks for payments made. This sum was to be considered as still due and collectible from Germany. The remaining 65,000,000,000 marks was to be thought of as a contingent claim, i.e., it would be demanded only in case the United States pressed its claims against Europe.

This plan at least had the merit of setting off the amount of the C bonds (slightly reduced) as different from the rest and of suggesting that their payment is to be considered doubtful. It was somewhat naïve, however, in its assumptions. It seemed to be an intention to surrender something of value provided the United States would do the same. Eighty-two billion gold marks would be forgiven Germany, partly by an outright reduction of claim and partly in case the United States would be generous. But the United States has never approved the impossible demands made on Germany, her representatives having all along favored a charge of no more than perhaps fifty or sixty billion gold marks. It is hardly probable that we would be moved to an act of generosity by an offer of the Allies to surrender an utterly impossible demand that should never have been made. The gesture of sacrifice is a

weak one unless it indicates not merely the permanent elimination of the C bonds but a substantial portion of the A and B issues as well.

Of course the intention may have been to suggest that our credits in Europe are as uncollectible as the C bonds but it is not probable that this was the meaning.

Early in August, 1922, just before the conference in London between Lloyd George and Poincaré, there appeared in the "*Petit Parisien*" a proposal said to be in the mind of the French premier.⁴ France was to claim nothing from Germany except reparation for material damage, reducing the German liability to fifty billion marks (the A and B bonds again) provided that Great Britain and the United States renounce their claims against France.

Finally we have the Balfour note, issued on August 1st by the Government of Great Britain and contending that Great Britain could not cancel the amounts due it from the countries on the European continent because it was feeling the pressure of the American Government for the amounts due there. The note was apparently a blunder and was very sharply criticized in the House of Commons and in the London press.

All three of these proposals are in effect hints to the United States and emphatic ones at that. We are indirectly informed that we should cancel or at least greatly reduce our claims. In the next chapter reference will again be made to the matter and the policy we should follow. Here we may observe that such action on our part would not solve Europe's problems. Little has been paid our government either in principal or interest and there is no prospect of immediate

⁴ *Pall Mall Gazette* (London), August 3, 1922.

payments except from Great Britain on interest account.⁵

This means that the strain on Europe to settle with us has thus far been a small one. The addition of our claims to the other obligations of the various countries has had a psychological effect and tended to weaken their credit standing but that is all. The breakdown is due to very different causes, as we have endeavored to show.

THE HOPEFUL SIGNS

At the beginning of this chapter reference was made to the existence of a few grounds for encouragement. In spite of their form and the unfortunate manner in which they have been presented, the Horne Plan, the Poincaré proposal and the Balfour note are hopeful signs. They indicate that common sense is gradually coming to the front and that the realities are being recognized. That the huge sums demanded of Germany cannot be collected seems to be realized. How the financial difficulties of the various governments can be met is not yet clear but the first step has been taken. This summer (1922) in Germany one impressive fact was the inability of the German leaders in government and finance to make any plans for the future. A little later the writer was in Paris, just at the time the German request for a moratorium was received (on July 12). The striking thing was the inability

of French leaders to suggest a solution for the French financial problems in case Germany did not pay.

From time to time since 1919 various remedies have been suggested. Stabilization of exchange, elaborate banking organizations and other devices have appeared one after the other. Last spring the Reparation Commission invited a group of widely known bankers, including Mr. J. Pierpont Morgan from the United States, to report on the advisability of an international loan to aid Germany in her reparation payments. Fortunately the bankers refused to proceed unless the whole question of reparations could be brought up for consideration. This too aided in bringing the facts to the front.

We must refer, but only briefly, to several attempts of a different kind. One is the famous Wiesbaden agreement signed in 1921 by Loucheur and Rathenau for their respective governments but not ratified until July, 1922. A similar attempt at a direct payment in goods to Belgium is the agreement between the Reparation Commission and Herr Bemelmans representing the German Government.

Still more recent is the Stinnes-Lubersac agreement⁶ and there is also an elaborate plan for the execution of public works in France, the larger part of the labor and materials to be furnished by Germany.⁷ All of these plans call for direct deliveries of commodities—for payments in kind. None of the projects have been carried far

⁵ Even the English, although officially ready to begin payments, are not slow as private individuals to suggest the advantages to us of a reduction. See e.g. the address of the Honorable Reginald McKenna, former Chancellor of the Exchequer before the American Bankers' Association in New York, on October 4, 1922. Anyone who has recently been in Europe will report that many of the views he stated are very common and that they are not always expressed with the same amount of tact as shown by Mr. McKenna.

⁶ Since this was written it is reported from Germany that the agreement has been cancelled.

⁷ For an outline of this proposal see *Commerce Reports*, August 21, 1922, p. 504. There are a number of different projects included, the total estimated cost being 18,419,000,000 francs. It is planned that Germany furnish at least 13,000,000,000 francs of this, 6,000,000,000 francs in labor and 7,000,000,000 francs in materials.

enough for us to know how valuable they may prove to be. Their success is very doubtful but they at least mark a step in advance.

Finally and most helpful of all are the evidences that the business interests of France and Germany are gradually drawing together. Trade between them is of considerable size. Agreements of some kind have been reached between the dye interests of the two countries and in recent weeks

the papers have been filled with references to alliances between French and German industrial concerns.

These movements are breaking down, or at least weakening the barriers created by the war. They cannot solve the acute financial problems of France but it is to be hoped that their influence will prevent the tragedy of a further invasion of Germany or of other violent measures that for a long time were so threatening.

Chapter X

WHAT SHALL BE OUR POLICY?

WHAT should be the policy of the United States toward Europe and its problems? We could perhaps assume an attitude of indifference were it not for the fact that our interests there are so large and our participation in European economic life inescapable.

There are two things that should characterize our attitude. One is that we should keep our discussions free from suggestions of self-righteousness. Europe's problems are difficult—much more so than ours. We would probably show not a whit more ability than the British, the French, the Italians, the Germans and the rest if we were in the same situation. There is certainly very little in our present handling of our own problems to indicate our keen grasp of intricate economic and political questions. Too much of our advice has been offered with an intimation of our superior morality or mentality.

On the other hand it is only fair to urge that our semi-detached position is an advantage, in that it eliminates or minimizes considerations of self-interest that necessarily affect the viewpoint of a European. There are a few matters on which we can properly have

clear cut opinions and give expression to them.

Western Europe is, as we have seen, laboring under a combination of difficulties. One is an economic depression of unprecedented severity. In so far as it is like previous depressions, time will do much to bring about recovery. Indeed some progress has already been made. Second is the fact that this depression differs from others because it is a reaction from a period of inflation more extreme and more widespread than ever before known. Its effects are consequently more serious and more lasting than usual and unfortunately liquidation is by no means complete. The real crisis has not yet been reached in Germany and perhaps not in several others of the Continental countries we have studied. If and when it comes the shock to England will be serious and we too will suffer a setback.

Then there are the new boundaries, the intense spirit of nationalism, tariff barriers, threats of new wars and all the other uncertainties. How can we best help Europe and ourselves?

First let us remember two conclusions that we have reached for Europe

and then apply them to ourselves. One is the entire impossibility of the large amount of outstanding obligations ever being paid in monies of the old values. This applies first to internal obligations in each country. Sooner or later this inability must be acknowledged. When that time comes defaults will be numerous unless in the meantime some such plan as "devaluation" is adopted to lessen the shock.

But this inability to make payment exists also with reference to external claims. The European economic machinery could not be readjusted to meet these demands for years to come, and probably will not be. For a time certain delusions on this point will persist but after a while they will disappear. Imports cannot suddenly be curtailed and exports (either of goods or of services) increased in order to make these payments possible.

Our second conclusion was that the creditor countries cannot afford suddenly to begin receiving large amounts of goods (and services) even if they could be furnished by the debtors. Time, and a long time at that, would be needed for the adaption of each country's internal organization to such a changed condition.

What does this mean to us? If Germany cannot make the large payments demanded of her how can we expect that the twenty countries named in Chapter I of this study can suddenly begin payments to us. How can we expect even the strongest of them to do it? England can do it chiefly by the diversion of income from other parts of the world and with very heavy strain. In some ways her problems are the hardest of all. Just as the creditor countries of Europe must in time recognize the inability of their debtors, so must we acknowledge the inability of ours.

But what of our ability to receive

payments? France is in desperate financial need. She has an enormous debt including perhaps 80,000,000,000 francs spent on reconstruction in the devastated regions. Suppose Germany should assume liability for this sum and send into France each year about 5,000,000,000 francs worth of miscellaneous goods in payment of interest and sinking fund charges on that amount. At the present rate of exchange this would amount to about \$350,000,000 per annum. Suddenly diverted to the French market, such a volume of goods, many of which compete with French products, would mean ruin to French manufacturers. Also it would drive out of the French markets many American, British and other goods just as much British coal has already been driven out by German deliveries on reparation account.

Suppose Europe were actually able to make these payments and we should attempt to take them. In what form would they come? Payments must be made as we pointed out in Chapter V either in gold, securities, services, or commodities.

Gold we shall at once rule out. Europe cannot well afford to send us much more and we can even less afford to take it. The large amount we have is well known, our net increase in gold holdings from August 1, 1914 to July 31, 1922 having been \$1,697,299,000. In 1921 alone our net imports were \$667,357,000 and in the first seven months of 1922 they were \$155,210,000 a total of \$822,567,000 in only nineteen months. These imports are not needed and are aiding to bring about a higher price level. This makes our market a less desirable place in which to buy and cuts off our export trade.¹

¹ One prominent English business man told the writer this summer that it was their deliberate plan to divert to America week after week the entire gold output from South Africa, using

Securities if we should purchase them are not a payment at all but merely an acceptance of more promises, a further increase of the debt. Unless there is some reason to believe that Europe's ability to meet debt charges can be increased more rapidly than the new loans make additions to the volume of those charges such loans are of doubtful wisdom. Moreover Europe's finances are in so unstable a condition that further loans at present are exceedingly hazardous. If the funds were used in destructive ways, such as for more war, the hazard is clear. If used merely to bolster up an impossible financial situation, the day of economic collapse will merely be postponed and will be worse when it comes. Even if used for definitely productive enterprises it is difficult and probably impossible to avoid entangling the funds in the general financial situation. Unless and until Europe's finances are stabilized on a basis that gives us assurances of future security, further loans to her are not an attractive investment. This is not a disparagement of her economic capacity or of her good faith, but a simple recognition of the existing financial chaos.

Shall we accept European services? To some extent we are willing. We are glad to travel in Europe and are willing that certain Europeans, e.g., Italians, should work here for us, remitting funds to relatives at home. Such payments as these aid a little in spite of the many ignorant protests that it means sending "money" out of the country and is, therefore, bad. But when it comes to such important items as the earnings of a merchant marine, America hesitates. Some at least contend that we want our own merchant marine and

it to meet as far as possible the British debt charges to us. This he agreed was regrettable but necessary because of our unwillingness to take their goods.

even propose to subsidize it. Then many also urge that all true Americans should finance their business through our own banks and insurance companies. We are not here taking issue with any of these views but merely repeating opinions that are commonly expressed. So long as these opinions are held Europeans cannot make payment to us by rendering services.

This leaves commodities as the chief means by which payment can be made. Until about 1873 we ordinarily imported more merchandise than we exported, the difference being possible largely because Europeans were willing to take our promises—our stocks and bonds. By 1873 European holdings of these became quite large and annual interest (and dividend) payments were considerable. Also we were traveling in Europe and allowing Europeans to carry our goods in their vessels. Payments to them on these and other items made necessary an export balance on merchandise account which was about \$500,000,000 per annum just before the war.

In a few short years we have bought back an important fraction of our securities that had been held abroad and have accumulated a European credit balance of perhaps \$14,000,000,000. We have built our own merchant fleet. At the same time we are insisting as never before that we desire to export large quantities of our goods.

These exports must be paid for, not with gold, not with continued large purchases of foreign securities. Since (or if) we refuse foreign services the payment must be with commodities. The larger the exports the larger the imports merely to pay for them. If in addition, payment even of interest on our foreign credits is to be received (\$14,000,000,000 at say 5 per cent) we must take extra imports to the amount of \$700,000,000 per annum.

Can we stand the strain of such a sudden reversal of trade balance? By no means. The trouble is not the size of the amount. Given time for readjustment, the hardships would be lessened. In the end we would of course find ourselves better off, receiving each year hundreds of millions of dollars' worth of commodities produced by foreign labor and capital. We would be reaping the reward of the investor.

A sudden reversal would be too serious a matter. Even if all the government credits should be cancelled outright the problem will be serious enough. In any case the cause of much of our favorable trade balance is gone. We have become a creditor country and sooner or later will have an import balance. Getting ready for that without the added burden of these intergovernmental payments will be as much of a strain as we are equal to.

What does this mean as to our policy? We shall not collect these large debts nor even the interest payments on them to any important extent. England is the only country able to pay and we object to letting her do so with the services of her merchant marine and of her financial houses. We also object to her commodities, and have raised a tariff against them. For a time she can send in some goods (and gold) but probably not for very long. If the amount is small it will not be adequate for the payments due. If it becomes large our troubles will increase, our objections grow in volume and in vehemence and some way will be found to check the movement. So far as collecting these huge amounts is concerned, we could not if we would, and we would not if we could.

Sweeping reduction or general cancellation of claims should come sooner or later and for reasons that are economic. Other arguments are often advanced

but we leave their presentation to others who are perhaps more impressed by their importance than is the writer. No matter how weighty they may be and no matter how much we shall be influenced by them in making our final decision, the economic reason is by itself sufficient.

But how about the American taxpayer who had hoped for relief from his burdens when foreign governments began their payments? The simple truth is that he must give up any expectation of relief. If it came in the only form in which it could be offered—large shipments of commodities—he would not gain through a lightened tax burden as much as he would lose from a disorganization of our economic life. This will not be easy to understand and protests may be expected.

LOANS TO EUROPE

Reference has already been made to the hazards involved in further loans to Europe. Particularly is this true of any proposal that we participate heavily in a great international loan to aid Germany in making reparation payments. This is overwhelmingly the case so long as the amount to be paid still stands at the sum named in the agreement of May, 1921, 132 billion gold marks less small amounts that have been paid to date. It is also true that no reduction in this amount is yet suggested that would really give relief. European opinion is not yet ready for anything more drastic than the cancellation of the C bonds. But the amount of the A and B bonds is more than can or will be paid and until there is reason to believe that our participation in a general plan of reduction or cancellation will mean real relief, we are justified in further delay. If the proposed conference is held in Brussels in November, 1922, or at any other date and if by that time assurances can be

given that the problem will really be faced, it is to be hoped that the United States Government will join in the deliberations.

In the meantime what shall be done? One thing is to continue in every way possible our discussion of the question. Time is needed for our own education. Many Americans who have recently been in Europe have not been trained observers and have received erroneous impressions. There are many, however, who have been abroad who have been able to understand. Their interpretations will vary and their recommendations will not be unanimous but that is to be expected. To much that has been said in this paper objections may be advanced by other observers. But the important thing is to continue the discussion and as it goes on many ideas will be clarified, differences of opinion be adjusted and agreements reached.

One thing more is important and that is the hardest. In fact it is several things closely inter-related. Our change from debtor to creditor status during the war has brought with it a host of new problems and we are bewildered by them. Europeans are as critical of what they consider our mistakes as we are of theirs, although the most thoughtful ones realize that it is a time for mutual patience.

As creditors, we must undertake new tasks, assume new responsibilities. International affairs have taken on for us an increased importance, partly because of great world changes and partly because of our own altered position. If our great merchant fleet is to be retained and not be the cause of dangerous friction with other countries, notably Great Britain, the greatest of care must be exercised. If we wish to develop our foreign trade as the passage of the Webb, the Edge and other laws, and the efforts of our great De-

partment of Commerce seem to indicate then our attitude towards imports must be altered. Tariffs must be lowered—not raised. In some manner we must reach a decision on this point, and if goods are to be imported more freely, every preparation possible must be made for the shock. Even if our claims on foreign governments are reduced, the strain will be a hard one.

Even harder, perhaps, is the preliminary task of altering public opinion. It is not necessary that all tariffs be abandoned but the lowering or removal of any is by no means easy. But readjustments there must be, and soon. So many unworthy causes have been advanced in the last few years by means of organized propaganda that any concerted movement is apt to be viewed with suspicion. This distrust already exists in connection with the proposal that the debts to our government be reduced or cancelled. It will appear also in connection with other proposals. Of each of them it is true that some groups will gain and others will lose. Only by pressing the needs of the community as a whole can this suspicion be overcome.

This leads to the concluding remark that in the international settlements that we hope are just ahead, the same charges will be made. The reduction of the demands against Germany will be to her advantage and will seem to injure others. Similarly, Europe will appear to gain and we to lose from any modification of our claims. The growth of a British fleet seems to menace our trade and the increase in ours to reduce the British national income. A decision to curtail our cotton acreage may seem to be our own affair but it vitally affects millions of English people. A desire on the part of Great Britain to control the route to India or of the Turk to satisfy national aspirations by

a return to Thrace, creates issues for us. After the recent great war, we know that our neutrality could not long be maintained if another conflict should begin.

In the reaction against the last war there has been a bad setback for the cause of internationalism. Some of

its apostles may have been visionary but the same charge may be truthfully brought against many of its opponents who have called themselves practical. Problems of today are more international than ever before and the recent holocaust was the price paid for ignoring that fact.

The European Crisis and the Peace Treaties

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"THE Economic Consequences of the Peace,"—disastrous consequences, of course. Few phrases have been more widely re-echoed than this one, which the talent of Mr. Keynes has made popular throughout the world. The peace has proved disappointing. Full of the remembrance of the past, men had conceived of her as the very picture of plenty and robustness; like the old allegorical figures, her arms heavily laden with flowers and fruit. They had been waiting for her so long, they had been so ardently wishing for her return, that they have felt astonished at the pettiness of her gifts. They had looked forward to her generosity; she has behaved like a niggard. She has not brought back prosperity. Balked of their expectations, men have begun inveighing against her. *Post hoc, ergo propter hoc*. The peace has been made responsible for the economic distress that has followed upon her heels. The crisis has come to be regarded as "the economic consequence of the peace."

The success of such a viewpoint is not surprising. What could better appeal to the delusions of all those who cannot reconcile themselves to the idea that our present straits are due to long-working deep-seated lasting causes, and who flatter themselves with the hope that, in order to cure all the ailments of Europe, nothing more is required than modifying a few texts by means of which unskilful wizards have cast an evil spell over the world.

Whoever takes it for granted, however, that a well-devised, or a better-devised peace would be able to re-

endow the European economic organism with its pristine vigor, indulges in a strange conceit and singularly overlooks facts as they are. Though one almost blushes to recall so obvious a truth, one must not get weary of emphasizing the true origin of the trials of the Old Continent. We are going through the economic consequences, not of the peace, but of the war.

Of those consequences, by far the most important is the general impoverishment of Europe. Even the lands which have least experienced the havoc of war, such as Germany or Great Britain, have been shorn of some part of their live forces, and have had to draw on their capital for over four years. Whole tracts of countries, not a few among the richest in the world, Belgium, Northern France, Poland, Galicia, Rumania, Serbia, have been laid waste. It was, therefore, a delusion to fancy that the enormous needs arising out of the destructiveness of war were going, on the morrow of peace, to stir up a revival of activity all round and to call forth an intensive movement of international exchange. While creating such needs, war destructions had, at the same time, done away with the means to satisfy them. A ruined land is a closed market. In the very ratio to the mass of wealth that had disappeared, exchanges of commodities were bound to become restricted. The deepest-lying cause of the present crisis is that the world nowadays possesses a productive equipment that vastly exceeds its reduced capacity of consumption. So lean has grown the body

that its armor hangs loose and weighs too heavily on it.

WAR ALONE RESPONSIBLE

For this trouble, war, war alone is responsible. Whence does it come, then, will you say, that this trouble has grown worse in certain countries since the peace? Whence is it that Austria, Hungary, Poland, for instance, in 1922 are worse off than in 1919, some of them indeed in the depths of misery?

First, it is because such a violent disturbance as the recent European upheaval cannot everywhere subside at the same rate, under the magical spell of the treaties. The mere signing of them has not always proved sufficient; could not possibly always have proved sufficient to bring back actual peace. Even after they had been signed, war went on with its destructive work in several parts of Europe. Such has been the case with Poland, which found itself compelled to settle by the law of arms the fate of its eastern frontier. Such has been the case with Hungary, where revolution and civil war have carried on for months the mischief of foreign war. Such has been the case with Rumania, Jugo-Slavia, Czecho-Slovakia, which have had to keep their armies mobilized, with the Russian and the Hungarian revolutions at their doors.

People forget, moreover, that peace only made manifest the long-protracted demoralizing process of the war. Under the influence of the war, the peoples had become used to living from hand to mouth, to spending money without any foresight. The true notion of the value of things had been wiped off in most minds. As long as war was going on, however, every nerve of discipline and work had to be kept strained. The moment peace came, they suddenly became unstrung. By a natural reaction there

grew up a general spirit of laziness, along with a taste for extravagant, improvident, often useless expenditure. The Western nations, as a rule, got over it pretty quickly. In Eastern Europe, there has been a more lasting demoralization. It is a fact that too many Eastern nations, while exerting themselves less, have gone on since the peace incurring an expenditure out of proportion to their resources, mortgaging the future in order to meet present requirements.

Thus, both from the material and from the moral point of view, whole districts in Europe have remained, since the peace, the victims of war; and it is this long-drawn aftermath of the world catastrophe which has piled up more ruins on the top of those that had been heaped up by the catastrophe itself.

We must, therefore, be careful not to lay to the account of peace the harm wrought by the war—a war which in too many places has too long gone on under the deceitful pretence of peace.

When people write that reparations, such as have been provided for in the Versailles Treaty, are the root of the present woes of Europe, they are laboring under a singular optical delusion. They assume, at bottom, without saying it in so many words, that the Treaty has raised the problem of reparations. For our part, we think the raising of this problem is rather due to the laying waste of the wealthiest provinces of France and of a small stretch of Belgium by the armies at the front. The Peace Treaty has done nothing but decide that those destructions were to be made good, not by those who had suffered them, that is to say the French and the Belgians, but by those who had carried them out, that is to say the Germans. It has barely declared that those were to be made poorer who were chiefly

responsible for the impoverishment of all. For this impoverishment it is not a bit more responsible than is an expert for the amount of the damage he assesses, or a judge for the crime he punishes.

Under such reservations (and most necessary they are), it could not very well be contended, however, that treaties which have upset the whole political map of Europe have been without any influence on the course of European economic life, and have not contributed their share to the present disorder. It was bound to be so.

PRINCIPLES OF VERSAILLES TREATY NOT ECONOMIC

The guiding principles of the Versailles Treaty and of its fellows were not economic principles. They could not be; nor are they to be blamed for it. It is not desirable that the material needs of men should ever hold sovereign sway over the destiny of nations. It is quite legitimate that the authors of the peace should have considered, above all, moral and political factors, and that they should have aimed, before anything else, at restoring the rights of peoples and the peace of Europe. That is not to say, indeed, that economic requirements have been left altogether out of reckoning by them: the Dantzig and the Saar arrangements are sufficient evidence to the contrary. Yet it cannot well be denied that they held this class of considerations to be secondary. While remapping central Europe, they have unquestionably disturbed its economic balance. If there has been such a thing as "Economic Consequences of the Peace," they are to be looked for in this direction; the more so as such consequences are possibly not beyond remedy, and the remedy might be suggested by carefully going into them.

As a matter of fact, when statesmen, economists, manufacturers and business men think of the economic reconstruction of Europe, the natural process is for them to look backward, mentally to visualize the main currents of trade that used to run across it before the war, to measure the strength of those currents and finally to cast about for some means to restore them in their former intensity.

HAVOC WROUGHT BY SHIFTED BOUNDARIES

History no doubt never repeats itself. It is a wise thing, all the same, not to turn our backs deliberately upon the past. The economic reconstruction of Europe will, in the last resort, mean the setting up of a fabric, made out of both new materials and of a number of old materials, where producers and business men will feel sufficiently at home. We shall therefore be attempting no vain task, if we inquire in what way the shifting of the frontiers has modified the economic structure of Europe, and what distempers have followed upon this traffic-disturbing surgical operation.

In Germany.—Germany has had large pieces cut off: her Polish provinces in the east, her French provinces in the west. Indisputably, the life of the German economic organism was closely bound to that of the whole world. Owing to her productive power and to the vigor of her commercial expansion, her activity was spreading beyond the boundaries of the Hohenzollerns' Empire and even of Middle Europe. Yet it was in her own territory, such as defined by her political frontiers, that Germany used to find the essential elements of her prosperity. Those elements were twofold. Not only had the toil of her nationals known how to set to work upon her abundant natural resources; it had also

succeeded in setting up between the different provinces a close coöperation, in knitting the various parts of the Empire together into one single whole. Had the line of the new frontiers done nothing but make Germany smaller, diminishing the total amount of her wealth, the resulting economic disturbance would have been comparatively trifling. But it has done more: it has, in a certain number of cases, destroyed the connection of the parts, dammed up well-established channels, broken the equilibrium of the whole. Of what precisely has this work of dissociation consisted?

The German exponents of the idea of "economic autarchy," who were dreaming, before the war, of making the Reich self-contained, its supplies depending in no way on the rest of the world, were only translating into the language of theory one of the fundamental characters of the structure of their country, namely, the spontaneous division of labor between the rural east and the industrial center and west of Germany. As far as mere outward signs go, the Oder might seem to divide the Empire into two entirely distinct economic worlds: on the left hand, the land of the big towns, the freehold of the industrial magnates; on the right, the Prussia of agrarian Junkers, the low-lying plain entirely devoted to the cultivation of the ground. But, dissimilar as they were, and by reason of their very dissimilarity, each lived for the other and with the help of the other. Eastern and western Prussia, Pomerania, Posnania were the great granary of Berlin, of Saxony, even of Westphalia. Western industry, for many years, had become the only *raison d'être* of the agricultural wealth of the east. Not only did the millions of workmen congregated around its factories provide

a never saturated market, but from there did the huge landed estates of the east draw their machines, their potash, their chemical manures; Prussian agriculture had become intensified, industrialized under the same impulse and after the same model. Both had thriven alongside each other, under the influence of a common stimulus. By breaking up the agricultural land of the east, by dividing it between the new Germany and the new-born Poland, the Versailles Treaty has destroyed this solidarity.

Though dealing with less extensive interests, the way in which the Treaty has sundered, in the west, the Lorraine and Saar metallurgical group from the Ruhr basin, has none the less smashed another vital piece of the German economic organization. As everybody knows, Germany, by the Frankfurt Treaty, had secured for herself in 1871 the possession of the iron-ore deposits which were then considered the richest and the only ones that could be used. Ever since that time, it had been a deliberate policy to work this metallurgical wealth in close conjunction with the coal wealth of the Ruhr. With but few exceptions, the steelworks erected on the Lorraine iron ore had been started by Westphalian manufacturers in order to supplement their Westphalian plant. With an output of pig iron, half-finished products and rolled material, they were mostly engaged in supplying the engineering and finishing works of the Ruhr. The Ruhr was their market. On the other hand, the Lorraine and Saar iron and steel industry could not have worked without the coking coal and the coke of Westphalia. Thus had an intimate connection, both industrial, commercial and financial, been developed between the two districts by the nature of things and the will of men. The handing back of Lorraine to France,

the setting up of the Saar territory have dislocated this system.

At the same time, the loss of the Alsace deposits was upsetting the conditions of another German industry, and a most important one: the potash industry. A few years before the war, the discovery of those deposits had come as a threat to the monopoly hitherto held over the world market by the Thuringian operators. The danger had been averted through the organizing of an official compulsory trust. The share to be produced by Alsace had been strictly rationed, in compliance with the interests of the Thuringian center. The Kalisyndicate, where the industry of central Germany held a controlling vote, had taken in hand the whole policy, regulating production, allotting the amount of sales, fixing prices. At present Thuringia alone remains under its control. The Alsatian field, having become French, has recovered its autonomy. Competition has taken the place of coöperation. French potash and German potash are at war on the world market. When losing its hegemony, the German potash industry has most certainly lost one of the essential conditions of its prosperity.

Those are the chief pieces of the German economic machinery which the Versailles Treaty has twisted and put out of gear. They were too important for the effect of their disadjustment not to be felt as well outside the new frontiers of the Reich. In spite of all the precautions taken by the Peace Treaty, German bad will has been able, for instance, seriously to hinder the coke supply of the Lorraine iron and steel industry. Again, even though it has been possible for the Alsace potash field, through the freedom that has been restored to it, to work on a more extensive scale, Ger-

man competition has been so keen as to make its situation pretty awkward at times.

In Austria-Hungary.—Even more than the dismembering of Germany, the destruction of Austria-Hungary was bound to disturb the general economy of Europe.

A paradox of political architecture, the Dual Monarchy was all the same a homogeneous well-devised economic fabric. Its political function in the Europe of old essentially was, through wonders of internal diplomacy, to keep in comparative peace and in an ever-threatened state of equilibrium a chaos of rival inter-locking nationalities. Such a miracle, one is entitled to assume, it would not have performed so long, were it not that it met an economic requirement. Contrasting with its political complexity, the simplicity of its economic build strikes one at first sight. Two groups of territories, an industrial one in the west, an agricultural one in the east, supplemented each other within its boundaries. Most of the industries in Bohemia, Moravia, Austria and Styria found both their natural outlets and their supplies of raw materials in Hungary, Galicia, Bosnia and Herzegovina; conversely, the industrial centers of the west were the chief markets of Hungarian corps, Galician oil and Galician pigs, Carpathian and Transylvanian timber. Inside each group, again, the different provinces had become united by close ties. The Czech textile industry, for instance, used to work up the raw material supplied by Vienna, which in its turn sold the manufactured article; from Hungary, Galicia would buy the wheat and flour she lacked. A continual process of mutual exchanges, made easy by the fact that there were no customs barriers, made a living unit out of this conglomerate of rival, ill-assorted nationalities.

Their unity found its expression in the preponderance of Vienna, not unchallenged indeed as a political capital, unchallengeable as an economic capital. A town of two million inhabitants, a big railway junction, a stage in the Danube navigation, Vienna was one of the chief European markets, a distributing center admirably located on the fringe of the Balkan world. Its radius of action stretched as far as Salonika and Constantinople. Its old banking experience made it the financial regulator of the whole economic movement in South-Eastern Europe. The break-up of the Dual Monarchy and the multiplication of state boundaries henceforth prevent it from doing the duty for which its long specialization had perfectly fitted it. From a center of life, it has thus been turned into a breeding-place of economic disease.

The peace has done nothing but seal the destruction of the Austro-Hungarian State, which had become a political impossibility. It would have done wisely, no doubt, not to sunder ruthlessly the economic connections that had grown out of this long existence. The solidarity of a system several centuries old cannot be dissolved without every one of the members thus separated experiencing serious disturbances. Every one of them, at this time, suffers from this brutal parting, and the whole of Europe unquestionably suffers along with them. In order to reconstruct, it will be necessary again to make into one economic body what has been dismembered politically.

In Poland.—It is a re-jointing of this kind which the makers of the Peace Treaty seem to have achieved on the borders of the Eastern world. By resuscitating the Polish State, one would say at first sight that they have called to life a perfectly sound eco-

nomic organism. The union of what used to be Russian Poland, an industrial tract to which has been added the larger part of Upper Silesia, with agricultural Posnanian and Prussian Poland and with Galicia which produces raw materials, makes up a unit which, one would think, contained within itself every possible element of equilibrium.

But let us look back and ascertain what sort of life was that of the various parts of present-day Poland when they were separate.

One fact strikes us at once, pregnant with ominous potentialities: the three essential components which at present make up the economic framework of the new state were, from the point of view of economics, with political and customs barriers between them, as strange to each other as any neighbors can well be. Each was deliberately turning its back on the others.

The industry of Congress Poland, its main source of wealth, chiefly depended on the Russian market. From 1910 to 1912, the total exports of Congress Poland have been estimated at 1,800 million gold francs a year; of those Polish exports, 90 per cent, that is to say, 1,600 million francs, went to Russia, 1,400 million of which consisted of manufactured articles. About the same time, the annual value of industrial production in Congress Poland was stated to be 2,800 million francs. Thus Russia alone took in more than one-half of the Polish industrial output.

It was Germany, on the other hand, as already pointed out, which consumed the major part of the agricultural production of Greater Poland, i.e., Prussian Poland. Railway consignments have made it possible to calculate roughly the volume of business Posnanian agriculture used to carry on with the remainder of Germany. It is considerable. About 1907, in Pos-

vania, the excess of the sales over the purchases of cereals and milling products amounted to 4,820,000 quintals. In 1900, the city of Berlin alone bought 100,000 head of cattle and 747,000 swine of the Posnanian breeders; Silesia, 42,000 cattle and 132,000 swine; Saxony (kingdom and province), 17,000 cattle and 127,000 swine. Posnanian exclusively worked for the German market, borrowing one single item from Russian Poland, to wit: agricultural labor.

As regards trade relations between Russian Poland and Austrian Galicia, they were practically non-existent. In 1911, Galician sales in Russian Poland amounted to 65 million francs only, purchases to 64 million. The whole stream of Galician commercial activity was flowing towards the other Austrian provinces, Hungary and Germany. From Hungary alone, Galicia, whose agricultural production did not cover her own needs, had to get 2,500,000 quintals of flour; the 250 to 300 million francs' worth of cloth she imported came from Bohemia, Austria and Germany; to Germany and Austria, the hundreds of thousands of workmen went to work whom she exported every year in order to make good the deficit of her trade balance.

Present-day Poland, therefore, is nothing but a juxtaposition of groups, ethically connected indeed, but which have been kept apart so long that they have become accustomed to live along divergent lines. Economically, she is a potentiality, not an actuality. In order to go on living in a normal way, it would have been necessary for each of the component parts to remain in close touch with its former associates. As ill-luck would have it, on the contrary, Poland around her cradle has found nothing but inimical feelings. Is it to be wondered at, that, under

such circumstances, her rehabilitation, rather say her organization, should have proved so difficult a task?

The problems that are raised by the existence of rejuvenated Poland loom in a particularly anxious light when you ponder on the future that may be in store for Polish industry, the economic backbone of the new state. That industry used to thrive on her union with Russia, where one half of her production, as we have seen, found its outlet. Western Europe was completely closed to it. Before the war, Germany bought of Russian Poland a mere 100 million francs' worth of commodities a year, mostly agricultural produce, selling her in return over 700 million worth: some raw materials and a large quantity of manufactured articles.

Thus the office of Poland in the European economic system was a clearly-defined one: a market for German industry, she in her turn poured her own products into the empire of the Tsars. What profits she made in the Russian market, she spent buying in Germany. She was the main stage in the great commercial way leading from Western centers of production to Russian centers of consumption. That was her essential function. That is the function she is no longer able to fulfil at the present day. Revolution and anarchy have shut off the market on which she used to depend; they have dried up her chief source of income. The same blow has stopped the big commercial current that used to flow from Germany toward Kien and Moscow, no doubt for many years to come. Not a few European conferences will meet, in all likelihood, before it is re-established. The collapse of Russia has for many a long day done away with one of the essential elements of Polish life and of Central European prosperity.

CONCLUSION

Such are the obstacles which the changes in political geography have thrown across the normal trade currents with which the organization of pre-war Europe had made business men familiar.

Were it not altogether useless to ply the authors of the Peace Treaty with retrospective criticism, one might say theirs has been a sin of omission rather than of commission. They have been anxious to set the people free and to found peace on right; the conscience of mankind would not have allowed them to do otherwise; there are times when it is proper to philosophize before living. Yet at the same time they have now and then omitted closing and dressing the wounds they had inflicted while carving into the European body. They might have kept some of the arteries where life-blood was circulating more widely opened. They have done it in certain cases. Perhaps it would have been necessary to supplement the Treaties where the political status of the new Europe was being

laid down with a complete set of economic agreements.

This duty, which has been almost entirely left over by them to their successors, the great Genoa Conference could have shouldered, and perhaps could have made a success of it. It could, by international arrangements with regard either to customs or traffic, have attempted to lower the gates that interfere with inter-European trade. Treaties of commerce, credit, labor, calculated to restore the equilibrium that has been destroyed, ought to have been prepared or even worked out within its precincts between the younger states and the older ones as well. Private international agreements could have been adumbrated there, in a friendly atmosphere, between producers of all sorts, so as to draw together again the bonds that have been snapped by the war or by the treaties.

We have good reason to think that such was indeed the reconstruction program of France, a modest one perhaps, but on positive lines. The Conference has chosen, instead, to strike a different path and stumble there.

The Indemnity for Reparations

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MORALITY teaches us that, when we are disputing our rights with an adversary, the surest criterion, by which we may know whether we are right or wrong, is to put ourselves in his place! I have always striven, when I speak to my fellow-countrymen, to persuade them to put themselves in the place of the Germans, but, when I write for foreigners, I should like to invite them to put themselves in the place of the French.

Now, I ask them to consider this. Let us set aside the question of political and social responsibilities for the war and consider nothing but the facts. During more than four years, France saw the richest part of her territory invaded and devastated to an extent that only those who have visited these regions after the war can realize. There are Germans who have seen these ruins and who, like our colleague, M. Adolf Müller, professor of Coöperation at the University of Berlin, have not been afraid to confess publicly the shame which they felt at the sight. It is not, as has been claimed, a question of destruction inseparable from all military operations, such as that resulting from bombardments: it is a question of systematic acts of destruction, organized in accordance with a deliberate plan, directed by technicians, in conformity with official instructions, which have been found and published: mine-shafts filled in and flooded; factories all of whose portable parts were carried away to be set up again in Germany; all the models of manufactures carefully removed; all the

cattle and agricultural machinery also; all the fruit trees, yes, the innocent apple, peach, and plum trees, cut down—together an admirable piece of work, considered as satanic work, executed with the sole end of killing French industry and agriculture for ten years, and which has attained its object perfectly.

The Germans, contrary to their expectations, lost the war. And do you know why, in November, 1918, they hastened to accept the capitulation? Because they wished at any cost to prevent the entrance of the allied armies into their territory, because they feared, and not without reason, that they would in their turn have to submit to the same sort of ravages which they had committed against us!

On the morrow of the victory, what was demanded of them? I am not speaking of the political clauses of the treaty of Versailles, which may give ground for just criticism; I have here to speak only of the reparations. Was any claim laid to a penal indemnity, such as that which the Germans inflicted on France in 1871, requiring an indemnity of 5 billion francs, whereas their war expenses had not exceeded 1,500 to 1,600 million francs, thus realizing a gain of 3,500 million, or a profit of 230 per cent? By no means. Were they even asked for the reimbursement of the expenses in the war? Not even that, because it was recognized that they were so enormous that it would be impossible for Germany to pay them. The victorious countries limited

themselves to demanding reimbursement for damage to property and persons.

Supposing then that Germany should pay the entire 132 billion gold marks, the figure at which, after successive reductions, the amount of the indemnity has been fixed (of which 52 per cent is for France). France would still remain charged with all the war expenses, a capital sum of 180 billion francs, plus say 10 billion francs annual interest, without counting the 1,500,000 lives sacrificed, which are not included in the amount of the indemnity but which, however, represent a considerable number of billions.

These are the facts. And now we read in the German papers, and even many times in the papers of our friends (as, for example, from the pen of M. Morel, the secretary of the Union Democratic Contract, or from that of M. Nitti, the Italian ex-minister) that France is acting like a Shylock who wishes to cut a pound of flesh from the body of Germany, or like a Minotaur, that she has no other aim than to enrich herself at the expense of Germany, while condemning the latter and her children and grandchildren to perpetual hard labor. Or as the *Berliner Tageblatt* says, in more facetious terms, that she demands "a fat pullet stuffed with truffles to take the place of a hen." How could even the least nationalistic Frenchman avoid a legitimate feeling of irritation?

Let us nevertheless strive to avoid this irritation and examine in a spirit of moderation and justice the arguments which are opposed to the claims of France. I say of France, for, curiously enough, she is practically the only country to be taxed with injustice, that of her Allies being scarcely discussed. Doubtless her claim is the largest, but is that her fault?

1. *Is the Indemnity Legitimate?*—

There is first an argument of equity. Germany, it is said, owes nothing, because it is not she that is responsible for the war; it is Russia, or even France. Article 221 of the Treaty of Versailles, which registers the confession of Germany's responsibility, is an abominable lie, imposed upon the vanquished by force. It must be erased, and that article, which is the keystone of the arch of the Treaty, being suppressed, the whole Treaty collapses.

But I think I should set aside that argument as not being pertinent.

Yes, the incorporation in the Treaty of Versailles of article 221 is a shameful abuse of power, more injurious to the victor than to the vanquished, for, even supposing it were demonstrated that the responsibility was entirely Germany's, justice no longer permits—since the mediaeval procedure and confession by torture have been abolished—forcing the guilty to declare himself guilty. But, supposing article 221 suppressed, as I should like to see it, the other clauses of the Treaty, good or bad, and notably that relative to the indemnity, would not be at all destroyed by the omission. For it is not as a penalty that this indemnity is claimed. It is not even by virtue of the rights of war, although that is recognized by the Germans first of all, in accordance with which, in war as in gaming, he who loses pays the stake. No, it is by virtue of that principle of civil right, proclaimed in the legislation of all countries, that whoever has inflicted a loss by his act, even though it were not by his fault, must make it good. I do not think that any honest man in Germany can contest such a principle. It is then useless to insist further upon this first point.

2. *Is the Indemnity Exaggerated?*—

Reparation is thus due. But, it is said, the figure fixed is exaggerated, for in the first place it ought not to include the amount of the pensions, and, moreover, the amount of the material damages has been given an unduly high valuation. I admit that these two objections are in part, at least, well grounded.

So far as the war pensions are concerned, it is indisputable that they were excluded from the fourteen points of President Wilson, for they had in view only the losses suffered "by the civil population." It is true that President Wilson changed this opinion, since he agreed, although not without acrimonious discussions, to sign the article of the Treaty of Versailles imposing the payment of the pensions.

Nevertheless, the Germans having laid down their arms only upon the solemn promise made by all the Allies that the points of President Wilson should serve as a basis for the Treaty of Peace, it is my opinion that they are justified in maintaining that we did not have the right to revoke that concession, and that, consequently, the amount of the capitalized pensions is to be deducted from the total of the indemnity. Now, that is not a small matter, for they represent nearly two-thirds of that total, about eighty billion gold marks!

But, of course, France can consent to that deduction only on condition that all the Allies also consent to it. Now, for the Allies, England, the Dominions, the United States, even Italy, it is just the pensions which constitute almost their whole claim upon Germany. Are they disposed to renounce it? It seems that they are not.

If, by the suppression of the pensions, the amount of the indemnity is reduced to the reparation of material

damage, then France and Belgium are left practically alone,¹ about nine-tenths for France, one-tenth for Belgium. The result would then be that France would scarcely lose by this renunciation, for it would assuredly be better for her to get 90 per cent of a realizable 50 billions, than 52 per cent of a problematical indemnity of 132 billions. That is why the solution already recommended by Keynes, and which then roused the indignation of the French, would today be willingly accepted; and, according to the latest news, M. Poincaré himself seems to favor it now.

There remains the question of material damages. Professor Keynes, in his celebrated book, declared that their valuation had been scandalously exaggerated, and, by a series of counter valuations, he reduces it to eighteen billion gold marks. We do not believe we will be suspected of partiality in this question, for we were the first, we believe, to point out the exaggeration of certain of these valuations, and Mr. Keynes even cited our evidence. But still the reduction made by our eminent colleague appears to us much exaggerated in the other direction.

Indeed, the question is not to ascertain what was the value of the houses or factories destroyed, but rather what has been or will be the *cost of reconstruction*. Now, this cost has been tremendously increased, not only by the depreciation of the franc, but by the enormous disproportion between supply and demand, for building materials as well as for labor. The *entrepreneurs* and the workmen themselves have cynically taken advantage of this situation. The result is that a house,

¹ Italy, too, and especially Serbia, have suffered enormous damages, but their claim would have to be made against Austria and Hungary. At any rate, a small part has been reserved for Italy in the claim upon Germany.

which at the time of its destruction was really worth from 15 to 20 thousand francs, has cost more than 100,000 francs to rebuild.

Nevertheless, it appears to us just to admit that the unduly large gains realized by these profiteers should not be charged to Germany, for they might have been avoided by simply accepting the proposition of Germany, namely, to leave the execution of the reparations in her hands.

There would then be a further diminution to be made of the amount of reparations, but it is very difficult to calculate it. If we estimate the cost of reconstruction at 150 billion francs (80 are already paid), including the interest on advances already made or to be made, and if we deduct 20 per cent for unduly large profits, the figure would be reduced to 120 billion paper francs, or about 40 billion gold marks.²

3. *Is it Possible for Germany to Pay?*—

But, it is said, even reduced to this figure, the indemnity still exceeds Germany's power of payment. And not only the German economists, but the most eminent economists of the other countries, like professors Keynes and Cassel, attempt to demonstrate this impossibility.

² It is to be remarked, moreover, that it is impossible to know what will be the rate of exchange between the gold mark and the paper franc six months from now, much less in 30 years! If, then, it is agreed today that Germany shall pay us 30 years from now 40 billion gold marks in payment of 150 billion francs expended, it may very well happen that in 10 or 20 years those 40 billion marks will not represent more than 100,80 or, even, if the franc rises to par, more than 50 billion francs. And the state will nevertheless remain charged with a debt of 150 billion francs in capital, or 10 billions in interest, a debt which although contracted in paper francs will be none the less payable to the bond-holders in gold francs—unless the state decrees a lowering of the value of the franc, which will be equivalent to bankruptcy.

Before discussing this point, let us first make two preliminary remarks.

The first is that such a reply in the mouth of Germans denotes in truth a certain candor. It amounts to saying: "The harm we have done is so great that it is not in our power to repair it." I set fire to your house, but I declare that my fortune is insufficient to repair the damage, and I conclude: so much the worse for you, the better for me!

A second remark is, that to affirm that it is impossible for Germany to repair the damage is to affirm *a contrario* that it is possible for France to do so. Indeed, it is not here a question of damage to come but of damage already done. How could it be said of a fact already past that it is impossible? The houses are burned, the factories destroyed, the mines flooded, the land ripped up. It might have been said, as in former wars: so much the worse for the victims, but France did not feel that she could abandon these victims to their fate. With a feeling of national solidarity, which no one, I think, will dream of criticizing, the state said: I, and all Frenchmen, assume your losses, I will reimburse you. That is what it did. It has already paid half, by borrowing, not without difficulty, and at onerous rates; it will pay the rest in five or six years. And then it turns to Germany and says to her: "Reimburse me for the advances which I have made and am going to make." And Germany replies: "It is impossible; we should be ruined." But why should France be ruined rather than Germany?

With this in mind, if we attack the question itself, it does not seem to us demonstrated that Germany is incapable of paying, especially after the double reduction which we have just admitted, which would reduce the indemnity from 132 billion gold marks

to 40 billion gold marks. Doubtless she could not do it immediately, nor even in the near future, but given thirty years, could she not pay an indemnity which would not be, as it seems according to the figures, ten times, but at the most five or six times, that which France paid cheerfully in but three years (1872-75)? For it must not be forgotten that, even counted in gold, the monetary unit has lost much of its value in fifty years, and especially in recent years.

The Germans reply that the war has impoverished them by despoiling them of the coal mines of the Sarre and of Silesia, the agricultural lands of East Prussia, their colonies, their shipping, etc. It is true, however, in spite of these losses, that Germany still has more coal than France. And as for the loss of the colonies (although I protested long ago against their confiscation) it must not be believed that their loss has resulted in greatly impoverishing Germany, any more than in greatly enriching England and France. Germany still has a population more than half again as large as that of France, and this superiority grows yearly.

Before declaring that Germany cannot pay, it would be necessary, at the very least, to prove that she has done all that is possible.

There is an article in the Treaty of Versailles, the equity of which the Germans themselves have not contested, which says that the budgetary charges of the Germans are to be at least equal to those of the country of the Entente in which they are heaviest. Now the budget of Germany for 1922 is about one hundred billion marks, while the budget of England is a billion pounds, and that of France twenty-five billion francs, or even thirty-five, counting the expenses of reparations. I am not ignorant of the fact that it is very difficult to compare the budgetary charges

of two countries, and still more difficult to measure the real value, as borne by the tax-payer, of different monetary units. I know very well it would be absurd to take as a measure the outside exchange value of the mark and to conclude from that that these one hundred billion marks represent only one billion francs or twenty-five billion pounds; nor even to take the value of the mark according to the index number, and consequently to divide the one hundred billion marks by the figure forty, which measures approximately at the present time (August, 1922) the rise of prices in Germany! Granted. But it may be affirmed that in whatever way we calculate the value of the mark and however high a valuation we set upon it, the one hundred billion marks of the German budget are very far from representing an equal value, and an equal burden upon the tax-payer, to the one billion pounds for England, and the twenty-five or thirty-five billion francs for France—especially if we divide these figures, as should be done, by that of the respective population of each of the three countries.

Without doubt, the problem of the payment of the indemnity is not merely fiscal. Should Germany bind herself to pay one thousand billion marks of taxes, it would be necessary to find the means of transforming these billions of paper marks into francs or dollars. It is precisely this difficulty, a purely economic question, which has led eminent economists, like Professor Cassel, to declare that the payment was impossible and that the only course was purely and simply to annul the debt—which means leaving the burden of the reparations on France.

It is easily understood that this is a solution not much to the taste of the French—so much the less as they well know that the German economists, at the time when they were counting on

victory and were calculating the amount of the indemnity to be inflicted upon the Entente, had expressed a very different opinion. Professor Lansburgh wrote: "With appropriate financial methods, the payment of any war indemnity whatsoever is possible."³

4. *Methods of Facilitating the Payment.*—

It remains then to find the "appropriate financial methods."

Certainly, we are not of those who expect to find them in the delivery of pledges, nor in coercive measures which could have no other effect than to aggravate the depreciation of the mark and prevent or retard the economic recovery of Germany. And, if I were the government, I should very willingly give up even the military occupation of the Rhine, since the expenses of that occupation swallow up the better part of the payment of Germany—an occupation useless from a military point of view, I say, for it is to end in 1935, I believe, and certainly it is not before that date that Germany will be able to think of a war of revenge. We are persuaded that, as our colleague, M. Jèze, notes, Germany will not pay *unless she wishes to*, but we hope that *she will wish to*.

It would be necessary, then, on the contrary, to offer her every facility for the payment.

In the first place, we should have accepted eagerly the offer which Germany made to undertake to reconstruct all that she had destroyed. That would have been not only the most economical solution, i.e., the least costly and the most expeditious (for if Germany had applied to the task of reconstruction the same scientific method as in her work of destruc-

tion, I do not doubt that the work of reconstruction would be almost finished today) but, also, I should say, the most moral, for it would have been a great example, the first in the history of wars, to see a nation repair by its own means the harm it had done.

Unfortunately, the French Government showed little inclination to accept this solution, although it was warmly advocated by the Confédération Générale du Travail (Federation of Trade Unions), but it met in other quarters the violent opposition of industrial workers and employers, anxious to reserve to themselves the monopoly of those gold mines which our devastated departments have been for them, and the government weakly yielded to these sordid interests. It must be recognized, at any rate, that there were certain practical difficulties in avoiding conflicts between the devastators of yesterday and their victims, and in making sure that the rebuilt houses were fully as good as those destroyed. Today the government recognizes its error, but rather late, since the reconstruction is already half done and the remaining half already under way. Then it gets the singular idea of employing German labor, not now in the reconstruction of the devastated regions, but in the execution of great public works—bridges, canals, the installation of hydro-electric plants! But it is not probable that the Germans would apply themselves with much enthusiasm to a task which would consist in developing the industrial strength of France!

A second way of facilitating the payments, and the most efficacious, since it is in the last analysis the only means by which one country can pay its debt to others, would be to accept German merchandise under the form of importations. But here the same opposition as before has arisen even more

³ Cited by Professor Rist in his authentic book on the finances of Germany during the war.

formidably, for you can understand that the French industrial workers have been terrified by the prospect of seeing poured into France, during thirty years, one hundred to one hundred and fifty billion francs' worth of German merchandise! Personally, from the point of view of the interests of the coöperative societies and the consumers, we should rejoice at this inundation, but neither the United States nor England has the right to reproach the French Government for its opposition, since they have both taken the same measure of protection against German importations, which they call dumping.

The payment in capital, under the form of participation in industrial enterprises, would also be an excellent mode of payment and one which would have the advantage of creating between France and Germany a forced solidarity which, although limited to economic relations, might ultimately be extended to political relations. This mode of payment, at first forgotten, then set aside, returns today to the foreground. It could be very easily realized, at least in enterprises in the form of joint-stock societies, without expropriation of the present shareholders, but simply by the creation of new shares handed over to France. Doubtless the capital and dividend of these shares would have to be in gold marks, but France would thereby become interested in the recovery of the mark.

By having recourse to these different methods of payment, the sum which would remain to be paid in gold marks would be substantially reduced and would probably not be above the capacity of Germany.

Is it necessary to add that it would be still more greatly reduced if the United States and England would consent to abandon their claims on

France? In that case, the latter could in return consent (it might even be made a condition) to an equal reduction of its claim on Germany, and that would be no small matter, about twenty-five billion gold marks! I must, however, recognize the fact that France would not accept this mode of compensation very willingly; public opinion in France would consider unjust that assimilation of claims so different in their origin; that claimed by the Allies to pay the expenses of a war waged in common, that claimed by France to replace her burned houses. France thought, perhaps naively, that the first of these claims could have been remitted to her without conditions and that, since all the Allies had given in common the blood of their sons, they might also have given in common their money. And that opinion is not only that of the French, but of eminent English and American economists, among whom it is enough to mention Professors Keynes and Taussig. But, since public opinion in the United States has not supported that view, it would be improper on our part to insist. Let us say merely this: since the United States thinks it is perfectly within its rights in insisting upon their claims on France, why does it say that France is abusing her rights in demanding her claim upon Germany?

In case this last reduction should be carried out, the amount of the indemnity would be reduced to about twenty-five billion gold marks, as far as France is concerned, and perhaps four to five billions for the other Allies; now, reduced to this figure, it could not be said that the indemnity exceeds the capacity of Germany to pay, for the latter had herself offered, after the armistice, a much larger sum.

If the United States and England did not feel they could agree to such a re-

nunciation, they would still have a method of procedure less onerous for them; that would be to consent to a loan which would permit the reimbursement of France for the expenses of the reparation which she has had to make, while waiting for the recovery of Germany to enable her to repay in her turn this inter-allied loan.

But, if neither of these contingencies is realized, which unfortunately seems probable, then we shall have to be satisfied with granting Germany the delay necessary to permit her to pass the present crisis. This, moreover, is what was foreseen by the Treaty of Versailles, when it gave her the right to pay off her debts by annuities for a long period of years, thirty years or even more. It is, indeed, a strange fashion of caricaturing that concession to picture it as a policy aiming at the subjection of Germany and a means of reducing to slavery a generation of Germans still to be born! Such is, however, the language of many German journalists, and even English.

And if, by reason of the fall in the value of the mark, the times set for payments, either by the Treaty or by later agreements, seem still too close, let the moratorium they ask for be granted, without pledges and without conditions, as the English Government advises, by giving credit to Germany.

However, without approving the uncompromising attitude of the French Government on this point, it is easy to understand why it hesitates to grant moratoriums and long delays, and demands pledges. It is because France fears that by the time Germany has become rich enough to pay, she will have become at the same time strong enough to refuse to pay. And we cannot say that this fear is absolutely chimerical.

The surest guarantee which France could find against that dreadful contin-

gency, would be the admission of Germany into the League of Nations. For it is the latter which henceforth should become the guardian of the engagements undertaken by its members one to another. And the Reparations Commission should be replaced by a Commission chosen from the League of Nations, in which Germany would be represented. Unfortunately, France does not appear disposed to consent to that admission, nor Germany to ask it—and it must be recognized that the refusal of the United States to participate in the League of Nations has encouraged Germany to act as she has.

ADDENDA

Professor Bonn has been kind enough to send me his article,⁴ as I also sent him mine, but I do not see much to add to my treatment, for our two treatments are in large measure parallel and even do not disagree very seriously in regard to the criticism to be made of the Treaty of Versailles.

Here, however, are some points upon which the arguments of my eminent colleague have not convinced me.

1. Professor Bonn complains that the amount of the indemnity has been left indeterminate and not immediately fixed as was the indemnity imposed on France in 1871, in order to permit Germany to be free from all control as soon as she had paid.

But if the amount of the indemnity imposed upon France in 1871 was fixed by the Treaty it is because it was a question of a penal indemnity! Now the indemnity demanded today of Germany is an indemnity for reparations, a reimbursement of the expenses of reconstruction. How could it have been fixed before knowing how much the expenses of reconstruction would be? Even to this day we are not en-

⁴ The article referred to appears in this volume on p. 149.

tirely sure of them, since we have scarcely paid the half of them. So we said to Germany: "We do not know what will be the cost of the reparation of the damage which you have caused us, but we will demand of you only the repayment of the sum expended." Is not that an act of good faith?

2. Professor Bonn attempts to demonstrate that Germany is unable to pay as a consequence of the depreciation of the mark, but that this depreciation depends on causes independent of the will of Germany and largely due to the policy of the Allies.

I do not deny that there is some truth in this argument. Nevertheless, it appears to me difficult to justify the German Government for its responsibility in the inflation which has brought in its train the fall of the mark. Indeed, at the present writing the issue reaches the figure of 376 billion marks, nearly all issued in the last two years—while France not only has not augmented her issue in the last two years, but has even slightly diminished it, reducing it from thirty-nine to thirty-seven billion francs. And, nevertheless, France has had to pay all the expenses of reconstruction, but she has paid them with internal loans and not with paper money. Why did not Germany do the same?

3. Professor Bonn ends with this conclusion: "It may be too late," which evidently means that there is no longer any hope of finding a financial solution which will permit France to be paid, and that consequently the whole of the damages which *she herself has paid* will remain a burden to her.

That is a consoling conclusion for Germany but certainly not for France! It is, besides, very humiliating to the financial capacities of the two countries, tantamount to an admission of impotence. I persist in believing that financial science has sufficient resources

to solve this problem, but I willingly grant to M. Bonn, as I had already recognized in my article, "this cannot be done without creating an atmosphere of confidence."

Without claiming myself to have arrived at that solution, it nevertheless seems to me that one might proceed as follows:

1. The Reparation Commission will be dissolved and replaced by a financial commission appointed by the League of Nations, which will have as its function to verify the account of the reparations already effected and to estimate what remains to be done.

The total, once established, will be valued in dollars.

2. Germany will have to devote one-third of her receipts to the payment of this debt and put it into the hands of the financial commission.

These deliveries will naturally be made in paper marks and converted into dollars at the rate of the day. The payments will be credited on the amount of the debt, until the debt shall be entirely wiped out.

The paying off of the debt, very slow at the beginning, will then be more and more rapid as the mark rises in value. If Germany wished to hasten it by adding to the stipulated payments others derived from loans, it goes without saying that she will have a perfect right to do so.

3. The territories subject to military occupation will be evacuated and all those clauses of the Treaty will be abolished which hinder the economic recovery of Germany (including that justly objected to by M. Bonn—the non-reciprocity of the most-favored-nation clause).

But, in return, Germany will enter the League of Nations and accept the sanctions provided for by the Treaty against nations in the League which fail to meet their engagements.

The Reparation Problem

By PROFESSOR M. J. BONN

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I

THE way in which the reparation question was settled in the Peace of Versailles is probably unique in the history of international finance. Germany had to bind herself to make good the havoc she had wrought upon her enemies. But the total amount of it—whatever it might be—was not fixed. She was forced to make good different categories of damages. And although the German people had laid down their arms on the clear understanding that only such damage was included as had been done to the civil populations, the cost of pensions and reparation allowance in all allied countries was included in this formula. This not only brought the total damage to a figure greatly surpassing the capacity of Germany for reparation payments, it reduced moreover considerably the percentual share France was to receive. But it did more than that. It convinced the German people that the declarations of the Allies concerning the sanctity of treaties were nothing but sanctimonious piffle which could easily be explained away by clever lawyers' quibbles. The consent of President Wilson, against the well-reasoned arguments of his financial advisers, to the inclusion of war-pensions in the compensation bill, changed the demand for reparation into one of partial indemnity. It knocked, so to speak, the moral bottom out of the whole problem. The rebuilding of the devastated areas in France and Belgium could easily have been conceived by the new Germany as a

sacred moral obligation; the inclusion of pensions was considered a piece of mere financial extortion, brought about by a callous disregard for the solemn obligations on which the armistice was based. In this connection the acknowledgement drawn from Germany, by threats of a further invasion, that she alone was responsible for the war, has always been looked upon as an endeavor to give an artificial moral basis to immoral claims. Instead of convincing the Germans of their supposed iniquities, it has had quite the contrary psychological effect upon them—which might easily have been foreseen.

In days gone by, whenever a big war indemnity had been paid, the receiving country tried to make it worth while for the debtor country to liquidate its debt as quickly as possible. The stupendous effort which France made in 1871 in paying five billion francs to Germany could never have been successful if Germany had not been willing to clear out of France as quickly as possible and to let France alone as soon as she had settled the account. The framers of the Peace of Versailles did not create such a favorable psychological situation. They decreed that the whole of Germany's financial obligation was to be fixed *two years* after the conclusion of peace. And as the different statesmen had told their people that the Germans were to make up all costs, the total sum to be fixed after two years was sure to be unreasonable.

In the meantime Germany was to pay twenty billion gold marks within

two years. This was five times the amount victorious Germany had demanded from France half-a-century earlier. Was Germany, after a four years' war, really five times as wealthy as France had been in 1871? The twenty billions were merely a kind of *hors d'oeuvre* after which the real feast was to begin. An expert body, the Reparation Commission, in which the victorious states were represented, was to fix on May 1, 1921, the total further amount to which Germany was liable. There was a minimum below which Germany's burden was not to fall: her taxation must be as heavy as that of the Allied country most heavily burdened by taxes. There was a maximum: her social and economic system was not to be destroyed by her carrying out her reparation duties. The treaty said nothing about the standards to be used for measuring the incidence of taxation or its influence on Germany's social organization. And it wisely did not do so. For such a standard does not exist, or rather cannot be applied in our present European economic organization, where statistics are rather unreliable. We have no real knowledge of the incomes of all the different countries and in the absence of this knowledge we cannot scientifically compare the relative burden of taxation falling upon their inhabitants. All comparative statistics in that direction are generally guesswork. Until the economics of the world are fairly stabilized, even the most careful statistical investigation will bring little reliable information.

The postponement in fixing the total sum of Germany's liabilities was like putting a premium on financial procrastination. If the twenty billions were found easily and quickly, the conclusion forced on the Reparation Commission must be that Ger-

many was quite capable of bearing additional heavy burdens. If she could put down twenty billions within two years at a time when she was completely exhausted, her capacity for future payments at a time when her economic life was once more normal, should be such as to satisfy the wildest dreams of avarice. When Bismarck took five billions from France he may have been wicked, but he was wise; when the Allied statesmen drew up the financial clauses of the Treaty of Versailles they may have been moral, but they certainly were not wise. They did not offer *ransom* to Germany by the payment of which she would be made safe and free. They framed the political clauses of the treaty, especially the clauses dealing with the occupation of the left bank of the Rhine, not with the view of making Germany pay as quickly as possible, but with the object of maintaining garrisons in Germany.

And they made the payments to be made by Germany as irksome and as ineffectual as possible. Germany was feared as an industrial competitor. She was not allowed to sell goods as freely as possible and hand over the proceeds to the Allies. She was refused the most favored nation treatment, but she was forced to extend it to the Allies. She had to hand over her ships at a time when freights were high; all her assets in enemy countries were confiscated, and the German Government was forced to pay compensation to the owners. She had to give up her best rolling-stock, she had to make huge deliveries of coal at a time when there was a coal famine in Germany and the prices she was credited with were not the world-market prices. In fact, she was made to pay in capital goods and these capital goods were valued far below the price they would have fetched if left

in German hands. The result was, that the total value paid to the Allies did not come to twenty billions, but only to about eight billions, although the loss to Germany far surpassed this sum. And only little of it went to reparations. Most of it was wasted on the armies of occupation.

The Versailles Treaty entitled Germany to make an offer for a lump settlement within four months of the Ratification of Peace. This offer was never made. The German Government, knowing the real state of their resources well enough, could never have made an offer which would have tempted the Allies. They were afraid of making a proposal within the limits of their resources, as the Allies' hopes had been pitched too high. They were willing to develop a scheme at Spa, but this Conference at Spa broke up without a serious discussion of the financial problem. The Spa Conference, abortive as it was in that respect, saved, however, the European situation for some time to come, by providing Germany with considerable credits. These credits enabled Germany to weather the winter 1920-21 by financing imports, and helped her to maintain the course of foreign exchanges at a fairly reasonable level.

II

Immediately after signing the peace, the German exchange, which had of course fluctuated a great deal during the latter days of the war, began to go down rapidly. In January, 1920, the dollar cost about 100 marks (the par being 4.2). The causes of this fall were partly psychological, partly material. The knowledge of the economic conditions of the peace created deep depression in Germany. It seemed impossible that a country, the economic life of which was torn to

pieces by the terms of the treaty, could ever recover when burdened with an uncertain, but huge debt. Germany's balance of commerce had always been adverse; but her balance of payment was favorable owing to her investments abroad and the services of her mercantile marine. Now the greatest part of these investments had been confiscated, the ships were taken away; the demand for imports had risen enormously as the long continuation of the blockade had emptied the country of all stores, whilst the loss of the iron-ore fields and the obligation to deliver increased the proportion of "necessary" imports and decreased the possible exports. The flight from the mark began. Frightened investors exported their capital to invest it in foreign securities, as there were few foreign securities in Germany and as the fear of confiscation hung over them. New heavy taxation was introduced whilst the social order, shaken by revolution, seemed anything but secure. The result was a strong demand for foreign currencies, which could not be stopped by legislation—especially as the occupied districts were practically not under the control of the German authorities. After some time, however, the movement came to a standstill. Foreign speculators, especially in America, took an interest in the mark when it had reached a deep level. Their purchases drove it up and as soon as the fall was arrested "panic buying" ceased and the exchange rose again. When the Spa agreement provided Germany with much needed credits, the exchange was steadied for a long period at about sixty marks the dollar.

During the whole time the German Government had been forced to pay its way by the issue of short termed Treasury Bills. Far-reaching reduction of expenditure was impossible.

As Germany had just failed to go in for Bolshevism it was essential to prevent the spread of unemployment. Moreover, the demands for reparations excluded any retrenchment on a large scale. The revenue from taxation could not be increased quickly; long-term loans could not be placed; the only endeavor in this direction in the autumn of 1919 met with very scant success. Thus the government had to sell Treasury Bills, a large quantity of which was subscribed for by the public. The rest was taken up by the Bank of Germany, which issued notes against them, thus increasing the note circulation considerably. The note circulation, which had risen from 2,303 millions (January, 1914) to 19,444 millions at the close of the war, had reached 35,698 million marks on December 31, 1919 and 68,806 millions on December 31, 1920. Prices rose correspondingly. But it is characteristic that for a long time foreign exchange rose very little, notwithstanding an ever increasing note issue, as the Spa loans and foreigners' investments in Germany temporarily restored the balance of payment.

During this period a series of international conferences (Brussels, Paris, London) vainly tried to bring about an agreement as to the total sum of payments for which Germany was to assume liability. After the London Conference had failed and the Reparation Committee had hurriedly toted up the bill as it was bound to do by the treaty, Germany was presented with an ultimatum demanding from her a payment of a capital sum of 132 billion gold marks. This ultimatum was accepted by Germany under pressure on May 10, 1921, not because she thought it bearable, but because the only way to demonstrate

the impossibility of these demands was to endeavor to comply with them.

III

The 132 billion gold marks (33 billion dollars) represented a capital on which 5 per cent interest and one per cent sinking fund were due. These annual payments would thus have come to 7,920 million gold marks. This annuity could only be paid by the export of German goods. Now German export trade had never been more than 10 billion gold marks; even in the best year the reparation would have taken up 80 per cent of the total exports. As it was, German exports after the war did not rise to more than 4 billions, or to half the amount needed for reparation alone. As imports were about 8 billion gold marks, there was a deficit of the trade balance without taking reparation into account.

The Allies tried to make possible the London agreement by restricting for the time being Germany's annual payments to about 3 billion gold marks. A fixed annuity of 2 billion gold marks was demanded and a variable annuity representing 26 per cent of the value of German exports was supposed to furnish a little more than another billion. At 6 per cent (one per cent sinking fund) these 3 billions represented a capital value of 50 billions. These fifty billions were issued to the Allies as bonds bearing 5 per cent interest and one per cent sinking fund, 12 billions being called Series A, and 38 billions being called Series B; after them came Series C, consisting of 82 billions, payment of interest on which was due only after it had been established that the necessary means were really available. For the time being the annuity consisted of about 3 billion gold marks or 75 per cent of the total value of

German exports. But this was not all. The excess balance due from Germany to the Allies for the settlement of pre-war private debts came to about 480 million gold marks a year. Including some other items the total foreign payments expected from Germany came to nearly 4 billion gold marks a year, or very nearly the total amount of German exports.

The bonds of Series A and B bearing 5 per cent interest, were handed to the Allied Governments, who were supposed to be able to sell them at a good price. These hopes were greatly disappointed, for the general investing public realized that these bonds were not good investments, as the debtor himself had loudly protested his inability to shoulder the burden placed upon him.

The gloomy predictions of Germany were soon borne out. The first billion was paid within the stated period, but with the result that the price of the dollar rose from 69.38 marks in May to 84.31 marks in August.

After some minor fluctuations a catastrophic fall in the mark took place when the League of Nations handed Upper Silesia to the Poles. In November, 1921, the dollar cost 263 marks.

It became evident to the world at large that a country, whose whole balance of payment is unfavorable, cannot pay an indemnity without an utter collapse of the exchange. But this was not acknowledged immediately. It was maintained by the advocates of the London settlement, that the break in the mark exchange was due to the over-issue of bank notes by the German Government. If expenditure were properly reduced and new taxation were levied, no new note issue need take place and no fall in the exchange need follow. These assumptions did not take into account the real facts

of the case. Important economies could not be effectuated, for after the heavy fall of the mark in the summer of 1921 the chief expenditure was no longer optional; it did not depend on the policy of the German Government; it was settled by the London Ultimatum.

The total expenditure of the Reich for German purposes was about 90 billion paper marks according to the estimates for 1922 (February). The total cost for reparations, etc., at the rate of 70 paper marks to one gold mark, (the dollar stood at that time at nearly 300 marks) was well over 250 billions. The bulk of the 90 billions went to pay interest on the debt, pensions, etc., 25 billions consisted in taxes collected by the Central Government for the states; the amount of expenditure on which savings were possible was very inconsiderable. Even if the Reich had had no expenditure of its own, the payment of reparations claimed ever increasing sums when the mark went down. The only efficient economy was a reduction of the reparation payments and that was possible only by means of a moratorium or a loan.

Taxation on the other hand could not be increased automatically whenever a fall of the mark exchange and a corresponding rise of prices increased expenditure. Some revenue no doubt increased automatically with the rise in prices, but many incomes—especially those of the broad middle class—remained stationary, and really diminished, as far as purchasing power was concerned. An interior loan could not be issued, for, with a falling mark exchange, nobody was willing to subscribe to it. The only thing the government could do, was to levy sufficient new taxation to cover the deficit in the regular budget, whenever a fall in the mark had created a new deficit.

The bulk of the reparation payments had to be defrayed by the sale of Treasury Bills, for which the government received bank notes, and by the conversion of these bank notes into foreign currency.

As the demand for marks was always smaller than the demand for gold currency—German exports were four billion marks gold, imports have been valued at six to eight billions, to which three to four billions reparation payments have to be added—the fall in the mark was bound to continue. Even the most drastic taxation could not have stopped it. The balance of payment can of course be influenced by drastic taxation, in so far as taxation reduces consumption, diminishing imports and increasing the available exportable surplus of home-made goods. To achieve this purpose Germany must have raised at least five to six billion gold marks in new taxes—this was about the deficit in the balance of the payments. This equalled about 350 billion paper marks additional taxation and a corresponding reduction in consumption. This was far beyond the tax-bearing capacity of the German people, whose standard of living, especially in the middle classes, was seriously reduced.

It has been agreed that the fall in the mark brought a golden harvest to Germany by giving a lift to export trade. No doubt individuals made an extra profit in paper marks when they sold goods for \$1000 and when, owing to a quick fall of the mark, they netted 300,000 marks when they had expected but 200,000 marks. But the country at large was not a gainer: as the total gold value of imports is about double the amount of exports, the country's balance sheet really became more and more unfavorable. The total bulk of exports did not increase, nor did their value in gold

marks. But speculation became very rife. Whenever the mark went down, the home demand for goods rose rapidly, people encroached upon their capital in order to lay in goods in the fear that prices might go on rising. Traders, speculators and investors competed with each other for the dollar; terrified over an impending future rise of the dollar, their competition drove it up in the present. At the same time, the break in the mark induced owners of marks abroad to cut their losses; new demands for marks did not arise; all forces combined to bring about a panic. On the other hand, whenever there was an upward movement of the mark, the buying of goods stopped at home and abroad, not because Germany cannot compete at a higher level of the mark, but because everybody marked time and awaited a further rise.

Naturally the fall of the mark brought about a flight from the mark, for as the investors realized that an income in mark securities was bound to depreciate, they looked out for gold securities. There are only a few of them dealt with on the German Exchange, and there is always a fear that these few may be sequestered by the German Government acting under orders from the Allied Governments. But there are many pound and dollar notes in Germany; they can be secreted successfully from the tax collector as well as from Allied confiscation. But they do not pay interest, thus depriving Germany of a source of income. Besides this, important balances have been created abroad; they enable the German business world to carry on business abroad at a time when to get credit is difficult and dangerous. But as the income drawn from them rarely enters Germany, it neither improves the balance of payment, nor does it add to the

country's tax revenue. The Allies have often insisted on coercive measures to make the flight from the mark impossible and to force back the capital which has emigrated. There is only one way of bringing about this result: to do away with the necessity of fleeing from the mark by stopping its depreciation.

IV

It was clearly visible in October, 1921, that the London settlement could not be carried out. An agreement had been concluded in Wiesbaden between Germany and France, facilitating the delivery of goods as a means of payment, thus, as it was hoped, diminishing the demand for foreign exchange. This agreement had not borne fruit as it was not ratified for nearly a year. Even if it had been, it could not have prevented a crisis, for at the present time Germany's productive capacity would not have been equal to the strain. The strain had to be lessened.

One way of doing it was by issuing a loan. Germany made frantic efforts to obtain one. In November, 1921, the Bank of England plainly declared that such a loan was impossible as long as Germany's reparation obligations had not been reduced to reasonable proportions. The avenue to a loan being closed, a moratorium was the only alternative left. Such a moratorium would leave France in the cold. She had had scarcely any reparation payments, for the ten billions wrenched from Germany had been frittered away on the up-keep of the Armies of Occupation. She had contracted a reparation debt of about 80 billion paper francs. It would have been easy enough to defray interest and sinking fund on this debt from Germany's payment—two billion gold marks are about five billion paper

francs, but whilst everybody talked reparation, the money which might have been available for these purposes was frittered away.

France realized, however, that the German situation was critical. In Cannes the foundations of a provisional moratorium were laid.

Germany was to pay 720 million gold marks (this is the interest and the sinking fund on the A bonds) and 1,450 million in kind. If the balance due to the Clearing Offices were added, this brought Germany's total obligation to about $2\frac{3}{4}$ billions, a considerable reduction on the London settlement, but, as events were to prove, far beyond Germany's present strength. The Reparation Commission coupled the moratorium with demands for financial and currency reform to be carried out by Germany.

It was hoped that the Genoa Conference would bring a solution of the reparation problem. As France objected to a discussion in Genoa and as most of the time was wasted in arguments with the Russians, no positive results were achieved. Negotiations between the German Government and the Reparation Commission were transferred to Paris, where the German Government engaged themselves to carry out far-reaching financial reforms: to cease the issue of Treasury Bills and of notes if a foreign loan were forthcoming within a reasonable time. Such a loan, the proceeds of which would have gone mostly to France and Belgium, would have diminished Germany's foreign obligation *pro tempore* considerably. It would have greatly reduced her demand for foreign bills and thereby raised immediately the value of the mark; it would at the same time have reduced government expenditure and thus enabled her to balance the budget.

A Committee of Bankers met in Paris. They declared their belief that such a loan could be floated, provided a settlement of Germany's total obligation was arrived at, and provided France desired such a settlement. But as France obstructed the committee, its conclusion was mainly negative.

From that time the present European crisis started. The sands were running out. The mark fell by leaps and bounds. Prices rose rapidly. Scarcity of capital became visible. For as the level of prices and wages was rising at an ever increasing speed the working capital in the hands of industrialists was no longer sufficient.

Credit was not elastic enough. The banks reduced accommodation to pure speculators—with the result that nearly all stock-exchange values crumbled to pieces. Foreign credits were not available on account of the awful risks. Social unrest spread.

The German Government asked for a complete moratorium, including a postponement of clearing office payments. The French Government answered with a series of notes and speeches which created one panic after the other.

It seemed for a moment that the London Conference might bring some relief. But as England refused to cancel France's debt to her, inasmuch as America did not mean to cancel the British debt, no fundamental solution was found.

The Conference centered round the question, whether a further moratorium granted to Germany was to be accompanied by financial control over German forests and German State Mines.

From a constructive point of view this was an entirely futile discussion.

What is needed, and needed quickly, is a complete cessation of all money payments from Germany for the time being, to enable her to restore her currency.

But this cannot be done without creating an atmosphere of confidence. The bickerings which have been going on for the last month have completely shattered all confidence. The present fall of the mark is not due to the economic activities of the business world creating a panic, it is due to a series of panics made by politicians which in their turn are followed by frenzied economic activities of thoroughly frightened people. For the time being the reparation problem has become a purely political problem. Its solution can be approached only after some politicians have learnt their lesson. It may then be too late. But if a solution is still possible it can only be achieved in the following sequence,—1) restoration of confidence, politically,—2) a reasonable moratorium,—3) immediately after the moratorium has been granted negotiations for an interim loan ought to be started, the proceeds of this interim loan to go mainly to France. The restoration of confidence, the moratorium and the interim loan will drive up the level of the mark. It will then be possible to prevent a further fall and to lay the foundation for definite settlement which will give due consideration to the legitimate needs of France, without undermining the foundations of Germany and with it the stability of Europe.

It may, however, be too late. The colossal dilettantism with which the reparation question has been dealt with since the armistice may have made solutions impossible which were clearly within the reach of mankind.

Transportation Conditions in Europe

By ROBERT HAAS

TRANSPORTATION conditions in Europe at the present time have been very considerably influenced by the effects of the World War. One might even say that all the difficulties which have arisen, and which are still continuing to arise, are merely the natural consequences of the hostilities.

It is true that considerable progress has been made in automobile and aerial transport, but, on the other hand, the effects of the war in the sphere of rail and water transport have been nothing but harmful.

RAILWAYS

It is true that a few lengths of railway line were possibly built here and there for exclusively military purposes, but this unimportant increase made no difference in the general state of development at which the European railway system had arrived in 1914. This development represented the sum of intense building activities which had lasted without interruption for over three-quarters of a century. The military railways built in France by the Americans, those laid in Russia by the Germans, and the connecting lines built by Italy on the Austrian frontier together make up a number of kilometres which would have seemed remarkable in the early stages of railway development; today they amount to only a very small fraction of the lines laid in time of peace.

Military operations and retreats are always accompanied by destruction of means of communication, but in the last war technical preparations allowed of systematic destruction; the work of

reconstruction has thus been rendered particularly difficult, long and costly. In the case of the railway systems which were first captured and then abandoned, it has been necessary to relay the lines completely.

To the damage caused by systematic destruction carried out in the course of retreats, we must add that resulting from military operations strictly so-called. Artillery often selected as its objective railway junctions, large stations, bridges, etc., not only in the occupied areas, but also in the areas adjacent to those where military operations were being carried out.

The direct material damage, although enormous, cannot however be compared in gravity with the indirect damage, if the general effects of the war on the means of communication can be so-called. Railways are a military instrument of prime importance. In the last war they were extended up to the very field of battle, and in the rear they were necessary for supplying material to industries which were producing munitions of war. They sustained the economic life of the country and assured its food supplies. It was inevitable that in keeping up this gigantic and unceasing effort for so many years the railways should deteriorate through the excessive overtaxing of all their resources, and especially of their rolling-stock.

The wear and tear on rolling-stock must be attributed not so much to the intense use of it during the war (on certain systems it has been found that war traffic exceeded the peace traffic by fifty to one hundred per cent) as to

the inability to carry out repairs. As the rolling stock had been concentrated in the zone of operations, it was far distant from its normal place of assembly near which the workshops were situated. The latter, moreover, had been deprived of some of their workmen, so that they were unable to cope with such an entirely exceptional situation.

Special mention should be made of the fact that, owing to the shortage of coal, engines were run on all sorts of fuel of inferior quality.

Although the effects of the war are most evident in the case of rolling-stock, it is none the less true that equipment and plant also suffered from the abnormal conditions created by the war. It has been found that on certain lines the speed of trains had to be reduced because it was impossible to replace worn-out wooden ties. Further, in normal times, railway plant is constantly being improved and added to, and so enabled to meet the varying and growing requirements of transportation. Such improvements and additions were completely neglected during the war.

Strictly material damages can be made good by a more or less considerable financial sacrifice. It is, indeed, a fact that in all cases countries have commenced to rebuild their railways and their rolling-stock. Though it was true that immediately after the war the chief cause of the transportation crisis was the fact that lines had been destroyed and that there was a shortage of rolling-stock, the same cannot be said today. Difficulties of a material nature have been overcome to a large extent. We may say that in certain countries the general condition of railway equipment is satisfactory.

Apart from these material difficulties, there is the shortage of coal for railways—a shortage which has seriously impeded regular operation. The coal

shortage has been caused in a general way by the diminution in production, partly as a direct result of the war, partly by reason of the introduction of the eight-hour day, and partly as a result of social troubles, strikes, etc., which have occurred in a great number of countries. At the present time, however, we think that we have reason to be optimistic, and to hope that the coal problem has already been solved so far as railways are concerned. Production has recommenced, and the same is true of export.

Prices remain high compared to pre-war figures, but this circumstance is chiefly due to currency depreciation.

Attention should be drawn to another conclusion of a general nature. The consumption of fuel per train kilometre has greatly increased. This increase is due to two causes: one, of a temporary nature, is the poor quality of the coal used; the other, which it may be predicted will prove permanent, is connected with the development of a characteristic feature in the technical progress of railways, which has received considerable impetus from the necessities of the war; that is to say, the increase in the weight of trains.

In Europe before the war, as a result of the abundant supply of labor and the facilities for obtaining supplies of fuel, it was possible to operate the railways with a large number of trains and small loads. In America, on the other hand, where more powerful engines were used, it was the practice to concentrate traffic in heavy trains. Experience has shown that the latter system is preferable from the point of view of the cost of operation. We might also mention the example set by the Americans in France, where they operated the lines leading to their ports of disembarkation according to their own methods.

The increase in the weight of freight

trains may, therefore, be regarded as one of the valuable results of the war; this increase tends to lead to the same proportions as in America. It leads to reduction in freight rates, but involves the introduction of certain technical improvements; among others, the establishment of a continuous brake on freight trains.

In all countries without exception, railway tariffs increased considerably during the war, and even more during the period immediately following it. During the long period of peace which preceded the war, a general and constant tendency to reduce railway tariffs had become apparent. Generally speaking, this reduction did not apply to transportation rates; only certain classes of freight had the benefit of reduced tariffs, which, while lowering the average level of prices, largely developed traffic.

This tendency was the expression of a sound economic idea, beneficial alike to the public and to the railways. If general expenditure increased on account of the inevitable development of plant and the increasing complexity of administration, gross expenditure on the other hand diminished as a result of the constant progress made in technical matters, which allowed the employment of more powerful and more economic engines, of large capacity cars, and of improved equipment in general. Railway operation tended more and more to pass under the control of governments which were readily inclined to make experiments in reducing rates, even without knowing beforehand what the results would be. Keen competition of producing countries in the world's markets had a certain influence, and led to an attempt to overcome the obstacle presented by customs' duties by means of reduced freight rates.

The present economic upheaval has not only checked these tendencies, but has also brought about a movement in the opposite direction, and led to an enormous increase in the cost of transportation.

As a general rule the increase in rates begins with the abolition of existing facilities, the next step has been a systematic increase in rates strictly so-called; that is to say, all prices were raised on a fixed scale, or more often according to complicated rules—by applying different rates according to the distance and the means of transportation. As a general rule the proportion of increase was lowest in the case of the cheapest transportation. In certain countries the increases in the price of transportation have been less in the case of freight, the increase in the price of which had been the highest, such as coal or essential articles. The rate of increase varies from one country to another, and is naturally much greater in countries with a depreciated currency.

We may say that a real increase in the cost of railway operation has occurred in countries as a result of the adoption of the eight-hour day, the falling off in the discipline of the staff and for other reasons. It may further be noted that a certain lapse of time always occurs between the appearances of the causes leading to a rise in prices and the increase in tariffs. It is natural, indeed, that countries should feel unwilling, where the railways are operated by the state, to adopt, or where they are operated by private companies, to sanction increases in rates which they have reason to fear will react on the cost price of the necessities of life. This delay in raising rates has gravely imperiled the financial position of the companies. For this reason their annual balance-sheets show large deficits, which would

have been wholly or partially obviated if rates had at once been raised to meet the cost of operation.

The increase in railway tariffs is only one of the aspects of the general rise in wages, the cost of raw material and of the depreciation of currency. It is necessary, however, to add that in the countries which have suffered least from the war a certain tendency to counteract further increases is already becoming apparent in connection with transport. Since the level of transport rates, the price of goods and the cost of labor are all to a certain extent interdependent, it is clear that to escape from this vicious circle a beginning must be made with the first of these factors, which can be modified much more easily than the general conditions of production since it is the more intimately connected with the control of state finances. As for the financial situation of railways, it may be mentioned that the net receipts on all systems without exception fell off during and after the war; this decline was not the result of inadequate receipts, but of the great increase in expenditure which the rise in tariffs had not followed sufficiently closely. Almost all administrations thus show an annual deficit, but these deficits are shown in very different figures in different countries. Certain countries calculate this deficit taking into account the charges connected with capital, others do not take this into account, and simply compare operating receipts and expenditure during one year. Heavy deficits are due primarily, as we have already pointed out, to the fact that tariffs were not raised in proportion to the increase in the cost of operating expenses. The confusion, indeed, necessitated a larger number of employees, but there were other still more noticeable causes, among others

the eight-hour day, which led to an increase in the number of the staff, and it must be remembered that this happened at a time when wages were increasing much more rapidly than rates could be raised. The rise in the price of fuel has also considerably aggravated the financial position, but this factor is very insignificant compared to the problem of staff. If we consider that the expenditure on staff in an organization common to all European railways represents at the present time seventy to eighty per cent of the total working expenses, it will be easily understood how completely the restoration of railway finances is bound up with the question of the number and remuneration of the staff.

For all these reasons it is probable that great efforts and much time will be needed before we can return to the former balancing of revenue and expenditure.

TRANSPORT BY WATER

With regard to transport by water, conditions similar to those which we have just described have arisen in the countries which have been the scene of hostilities, particularly in the north of France. In these districts a great number of waterways have been seriously damaged. A large proportion of the craft available for inland water transport has been destroyed. In other countries, however, the waterways have remained intact, and there has been no very considerable loss of tonnage. It is true that the upkeep of waterways has not always been carried out adequately, but we may say, nevertheless, that the problem of transportation with regard to inland water transport, has not been influenced by the results of the war to the same extent as transport by rail. With the exception of a few very rare

cases, the damage caused to ports and canals did not impede traffic, and at present, unlike the case of railway rolling-stock, a surplus of tonnage for inland navigation already exists in certain places.

The following conclusions of a general nature may be drawn from the present situation with regard to inland navigation in European countries. Water transport has also been disorganized by the war, but this disorganization is due to damage resulting from political and economic causes, such as new frontier lines, and only a very small part of it is due to material damage.

From a technical point of view, inland navigation made no progress during the war; nevertheless, mention should be made of the tendency which many countries have shown to extend their system of waterways, to improve and enlarge their ports, and to provide them with the necessary equipment. It would, however, be useless to expect immediate results from these expensive schemes, for unfavorable financial conditions will impede their carrying out.

With regard to conditions of operation, it was to be expected that the price of water transport should increase much more rapidly than that of railway transport. Railways are almost everywhere administered or controlled by the state, and the governments have prevented any larger increase in rates as long as possible.

Navigation, on the other hand, is almost exclusively in the hands of private companies or undertakings; it therefore adapted itself immediately to the conditions both of the demand for transportation and the increase in freight charges.

The result of this was that at certain periods the cost of transportation by water became much higher than that

of transportation by rail, but this circumstance must be regarded as only temporary. Freight rates have begun to decrease, and when the scale of prices becomes more and more stable, navigation will once more offer its services under more advantageous conditions, particularly for long distance freights and goods which cannot pay high transportation rates.

This opinion is only valid on the supposition that the railway administrations in different countries will sooner or later return to a method of operation which is healthy and economic in the real sense of the word.

GENERAL EFFECTS OF THE READJUSTMENT OF FRONTIERS UNDER THE NEW CONSTITUTION OF EUROPE

The war has not only had these, so to speak, direct, and from a certain point of view, temporary, effects; the influence of new frontiers and the creation of new states, and the very principle of the reconstruction of Europe by the treaties of peace has been also of permanent importance where transportation conditions are concerned.

It is well-known that the fundamental principle on which the new territorial order of things was based was the principle of nationality. That is to say that when fixing the new frontiers the first consideration was the nationality of the inhabitants and the national sentiments of the population.

This necessarily involves consequences harmful from an economic point of view; it has also been seen that in several cases economic unities have been dismembered, likewise the creation of new states by altering frontiers has led to new conditions from the point of view of railways. The most important territorial changes have made the existing international

stations useless, and have made it necessary to build new ones. International stations are complex organizations, the development of which generally requires a long period of years. It is necessary for them to be provided not only with railway equipment, properly so-called, but also with accommodation for customs, for sanitary inspection, for posts, for police, and to be subject to proper regulations. The giving up of the already existing international stations with a view to constructing new ones imposes a very severe burden on the states concerned.

The number of international stations which have thus been transferred is very large. We need only mention that in the case of Austria alone, at least fifteen stations of this kind will have to be dealt with by new agreements. In Hungary, where transit traffic required fourteen international stations, forty-six are now necessary, most of which are not suitable for the purpose for which they are being used. Czecho-Slovakia needs thirty new international stations for its traffic with Austria and Hungary. It is not necessary to add these figures together, as each state considers that the joint station should belong to it, but in any case there is extremely urgent work to be carried out, and there are no funds with which to do it.

The greater railways had followed routes which corresponded to the economic policy of the countries they traversed rather than to local topographical and geographical conditions. Technical progress and the possibility of drawing on unlimited financial resources, made it unnecessary to restrict the choice of routes. Thus, it became a simple matter to transform these lines into a political instrument of prime importance by creating distinct currents of transport,

even if this operation revealed the influence of considerations alien to natural economic conditions. The destruction of certain political organizations, and the creation of others, inevitably diverted the currents of traffic from their original channels. Thus, the existing railways were likely to find themselves in the position of rivers suddenly deprived of the streams which feed them, while great masses of passengers and freight blocked lines which were not prepared to carry them. The most characteristic manifestation of this phenomenon was in the part of Central Europe which formerly constituted the Austro-Hungarian Empire. The Austro-Hungarian railway system gave almost exclusive preference to lines running from north to south, which fell in with the plan to foster relations between the regions of Bohemia, Silesia and Galicia (which were rich both in agricultural and mineral products) with the almost completely non-productive alpine districts. Furthermore, all the lines converged on the two capitals, so that communications from west to east were rare; it is true that this is the direction of the great Danube waterway, but the requirements of modern transport are such that they can only partially be met by the use of waterways, all the more when such waterways are not yet supplied with adequate equipment.

The new states, which lie chiefly from east to west, prefer lines running in that direction, and it remains to be seen if and to what extent these tendencies correspond with natural conditions which are really favorable to lines running from north to south, as these connect countries which differ in climate and production. There should be no doubt, however, that, pending a new organization in the future, the overthrow of the former

organization will increase the difficulties in exchanges. It is clear that only a consistent effort during many years can adapt the European railway system to the new political formations, especially as the work of reconstruction will be extremely slow. It is true that the newly formed states have very large programs for railway construction to meet the requirements of the national policy adopted by each of these states, but the general economic position will prevent these schemes being carried out in the near future. We must therefore count rather on the effect of measures taken to utilize existing lines and plant in spite of the difficulties in the way.

Apart from these difficulties of an economic nature, we must also refer to a factor of a political character: the natural predominance, not only in the newly formed states, of the desire for a strictly national policy which is given preference over all other considerations, including the most important economic factors. In all European countries without exception such tendencies have been noted during the war, to the detriment of the economic yield of the European transportation system.

INTERNATIONAL ENDEAVORS TO RE-ORGANIZE TRANSPORTATION IN EUROPE

These various factors would make the situation almost hopeless were it not for the fact that we can, at the same time, report attempts which have been made to meet the economic situation. The very difficulties which have been experienced have given rise to a consciousness on the part of the European States of the absolute necessity to attempt at least to examine these problems from an impartial point of view, and to unite in seeking for a remedy. We therefore see that,

little by little, although to an insufficient extent at present, a series of international agreements have been concluded with a view to improving transportation conditions. It might be well to give a short summary of these various attempts in chronological order:

1.—*Conference on Passports and Customs Formalities*

With the object of removing as far as possible the difficulties impeding international passenger traffic, the Provisional Committee for Communications and Transit of the League of Nations sent out invitations to a conference which was held in Paris from October 15 to 21, 1920. Twenty-two states were represented there. The conference dealt with questions of passports, customs formalities and through tickets. The most important measures which the governments were invited to adopt are the following:

1. The establishment of a uniform type of passport for all countries;
2. Passport to be valid for two years or, in exceptional cases, for one journey only;
3. The fee charged shall not be of a fiscal character;
4. Diplomatic passports will only be granted to persons falling within certain specified categories;
5. Preliminary visas (i.e., visas granted by the authorities issuing the passport) will be abolished as far as possible;
6. Exit visas will be abolished for all travelers except nationals;
7. For passports issued for a single journey, the duration of validity of the visa will be the same as that of the passport; for passports issued for two years, the visas will be for one year, in all but exceptional cases;
8. The maximum fee for a visa shall be ten gold francs;
9. Transit visas will be issued at once, solely upon production of the entrance visa for the country of destination;

10. The duration of validity of a transit visa shall always be the same as that of the entrance visa of the country of destination;

11. The maximum fee charged for a transit visa shall be one gold franc.

Up to the present time various governments have considerably decreased the formalities with regard to passports and customs. A certain number of governments have even suppressed visa formalities in the case of mutual traffic between their nationals, and in certain cases the passport system has even been abolished. Certain countries, particularly those situated in Eastern Europe, at present find it impossible to make any considerable change in the system in force. A Conference of Succession States of the former Austro-Hungarian Monarchy was convened at Gratz on January 18, 1922, with a view to considering the best means for applying the resolutions of the Paris Conference.

(a) A uniform type of passport. Duration of validity of the passport: one year at least, except in exceptional cases, when a passport is issued for a single journey.

The fee charged for issue of passport shall not be of a fiscal character.

(b) Preliminary visas shall only be insisted on in cases where the validity of the passport is subject to doubt. They will always be given free.

(c) Exit visas to be abolished.

(d) Entrance visas shall be valid in principle for the same period as the duration of the passport. The fee for an entrance visa for a year shall be ten gold francs.

(e) Transit visas shall be, as a general rule, issued without enquiry, and their validity shall be the same as that of the destination visa. The fee for a transit visa shall be one gold franc.

These various decisions, and a number of other decisions of the same nature, have been the subject of a Convention between the Succession States.

2.—*General Conference at Barcelona*

With a view to providing measures for insuring freedom of transit on all lines of communication, and guaranteeing equality of treatment for passenger and freight traffic on waterways of international concern, a conference met at Barcelona on March 10, 1921, which was attended not only by a great number of states' members of the League of Nations, but also by a certain number of countries which were not members of the League of Nations—in all forty-four states were represented there. Two important questions were the subject of international conventions drawn up and concluded at the Conference of Barcelona, namely, the question of traffic in transit, and the question of traffic on navigable waterways of international concern.

As is well known, the term "traffic in transit" is applied to persons or goods transported across the territory of a state, although both their points of departure and destination lie outside that state. Such traffic stands in special need of international guarantees. For, in the case of the transport of goods intended for exportation or importation, a state which hinders or prevents the free passage of such traffic may indirectly retard the economic recovery of the world, and consequently injure the whole community of states; directly, however, it only injures either the exporting state, in so far as it hinders or prevents the transport of imported produce, or else the importing state, if, for example, the latter should require raw material which the state itself exports, and which it would not allow to be transported across its territory for the purpose of exportation. In the case of traffic in transit, on the other hand, any interruption or hin-

drance injures states which are third parties, both those which export and those which import the goods, the free passage of which is interrupted. Such an interruption gives rise inevitably to reprisals and counter-measures being taken, the effects of which it is impossible to limit.

The object, therefore, of the International Convention of Barcelona on Freedom of Transit is to prevent such interruptions or hindrances from taking place. To that end, it establishes—subject to legitimate reservations with regard to police measures, national security, etc., and subject to the necessity of complying with local conditions in the various parts of the world—complete freedom of transit. Equality, in this sphere, as in many others, is an essential condition of freedom. Without equality of treatment the current of traffic would be subject to onerous conditions and would be automatically held up owing to the natural effects of commercial competition.

On the other hand, once this freedom and this equality are admitted, international commercial competition will be able to continue unchecked, and traffic in transit will enjoy species of immunity which would be to the advantage of all parties.

The same principles of freedom and equality which, in the case of rail or water-borne traffic in general, are only applied to traffic in transit, are, on the other hand, in the special case of goods transported on waterways of international concern, applied to every category of transports, including imports and exports and internal traffic. The Barcelona Convention regarding the international régime of navigable waterways laid down exact rules for navigation on these waterways. The term "waterways of international concern" is applied to waterways accessi-

ble to ordinary commercial navigation and providing more than one state with an outlet to the sea. Such waterways have long been the subject of general or private international agreements. More than a century ago the French Republic had already proclaimed the complete freedom of navigation and the equality of flags on these waterways, which at that time were called "international waterways." The Congress of Vienna had already attempted to draw up measures in order to apply these principles which, as a matter of fact, governed the regulation of navigation during the nineteenth century on the great European international waterways, such as the Rhine and the Danube, as well as on the great African rivers. The necessity for international coöperation, in order to utilize in a rational manner these great traffic routes, is obvious. A state traversed by such a waterway could not monopolize it for its own benefit without injuring itself, as the other riparian states would exercise their monopoly in the same way. States situated up-stream on great international rivers, would suffer particularly from this lack of liberty, especially states deprived of an outlet to the sea. For the latter, freedom of navigation on waterways of international concern is only another way of stating their right to have free access to the sea. It must be admitted that the new map of Europe, as it appears since the conclusion of the different treaties of peace, contains quite a considerable number of states land-locked or partly so (in this respect by states partly land-locked we mean states whose access to the sea is insufficient in proportion to their area and their importance). When we carefully examine the new map of Europe we see the vital interest that the conclusion of conventions on

freedom of transit and on the régime of waterways of international concern presents for the above-mentioned class of states.

Had the Barcelona Conference desired to confine itself to the general lines of its program, it would, strictly speaking, have been entitled to deal only with waterways of international concern, without touching upon the general régime of transport on other waterways.

As, however, a certain number of states showed themselves to be ready to accept at once, but subject to reciprocity, certain obligations affecting all their waterways, and not only waterways of international concern, an additional Protocol was drawn up to which certain states have already adhered; this will enable freedom of communications on waterways throughout the world to be developed gradually, and by a simple procedure whenever the states shall so desire.

The necessary number of ratifications having been received on August 2, 1922, the convention on freedom of transit and the convention on the régime of waterways on international concern will come into force from October 31, 1922. In addition to these conventions, the Barcelona Conference also adopted a recommendation concerning a statute for ports placed under an international régime, and a series of recommendations with regard to the régime of railways.

3.—*The Conference of Porto Rosa*

With a view to settling a certain number of questions concerning communications and transportation, and facilitating economic changes, a Conference of the Succession States of the former Austro-Hungarian Monarchy, at which representatives of Great Britain and France were present with equal powers, met at Porto Rosa

in October, 1921. In view of the difficulties of a political nature which arose at the very moment when the conference was meeting, it is all the more striking and all the more interesting that remarkable results were achieved. The results of the conference may be summarized as follows:

1. Postal and telegraphic convention, particularly dealing with the reduction on the general tariff of the postal unit between Succession States in the case of postal orders, etc.

2. Convention on railway traffic fixing the principles of coöperation in the case of direct services, and the opening of frontier stations, etc.

3. Decision with regard to the immediate provisional allocation of Austro-Hungarian rolling-stock not yet allocated between Succession States, and therefore immobilized.

This decision is of considerable practical importance for the resumption of traffic between these states.

4.—*Transport Commission of the Genoa Conference*

The International Economic Conference which was held at Genoa in April and May, 1922, likewise dealt with transportation problems in Europe. In the resolution adopted by the conference a desire is expressed that European States should continue to devote their unremitting efforts to the restoration of all means of transport at their disposal and to the removal of every obstacle affecting international communications, since efficient transport is an essential requisite for the revival of European trade. It is also essential that the conditions of international transport should be determined solely by commercial and technical considerations:

Resolution 1

All European States should maintain their efforts to restore or improve the

organization of their railways, their ports and their maritime and fluvial means of communication. If these railways, ports or means of communication are not in a satisfactory condition, and if the state concerned has not at its disposal the necessary resources to secure their restoration, steps should be taken without delay to procure for it the necessary assistance.

It is desirable that all European States, signatories of the conventions concluded at Barcelona, should ratify these conventions as soon as possible if they have not already done so, and that the European States which are neither signatories of these conventions nor parties thereto should put their provisions into operation without delay.

The European States represented at Genoa deem it desirable that the conventions relating to ports and railways contemplated by the treaties of peace should be prepared and put into operation as soon as possible. It is also laid down as desirable that the competent technical organizations of the League of Nations, with the addition of one representative of any state which is not a member of the League, in cases in which such state may be interested, should examine from time to time the progress achieved in carrying into effect the above provisions, and that they should summon to this end, with the consent of the states concerned, special conferences of experts.

The resolution of the Genoa Conference also provides for the convening of a conference of technical representatives of all the railway administrations of Europe and other countries interested, in Paris, so that all possible steps may be taken without delay to reestablish international traffic, under conditions at least as satisfactory as those existing before the war. The purpose of this conference, therefore, is that the railway administrations

should immediately take all steps in their power, and that their representatives should agree on the proposals to be submitted to their respective governments in respect of such further action as may require governmental intervention.

Among the principle items on the agenda of this conference should be the question of through tariffs, and the mitigation of the impediments to international transport occasioned by exchange fluctuations.

We have very briefly summed up the various attempts which have been made by European States to improve transportation conditions. This short summary clearly shows the tremendous difficulties which stand in the way of the achievement of this improvement, and yet the only way for European States through their difficulties to safety is that of international coöperation.

We may perhaps hope that a day will come in the distant future when the problems of transportation between different European States will be similar to those of traffic between the different states of a country like the United States of America. Then, and such is the conclusion arrived at by this enquiry, the material difficulties, which are much less serious than those resulting from the dispersal and lack of coördination of activities, will soon disappear. In spite of the pessimism that might arise, were we only to examine the present European situation, we must still remain optimistic to a certain extent, and we must pay a tribute to the attempts which have been made towards international organization in Europe, which are certainly very insignificant compared to what has been long since achieved in America, but which are, nevertheless, the initial steps in a movement, the force behind which will perhaps be revealed by future events.

Reconstruction in the Cotton Trade

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THE problem of reconstruction in the cotton trade is, in the writer's view, fundamentally a question of the supply of raw material, rather than of manufacturing capacity, or of the world's desire to consume, or power to pay for the goods. As will be seen from the tables annexed, the world's active spindlage today is substantially above pre-war figures, even after deducting the spindles in countries such as Russia, which are for the time being entirely out of commission; and the actual consumption of all kinds of cotton during the past season has been at the rate of 92.5 per cent of pre-war figures (1912-13), while the world's crops for 1921 were only about 70 per cent of those of 1912.

The problem of the raw material supply is not a new one in the cotton trade. As early as the beginning of the century those who took a long view of world conditions had become seriously alarmed about the prospects of supply in the future. The world's crops were increasing at a fairly rapid rate, but the potential demand for cotton was increasing still faster, and it was felt that the time might not be far distant when the point of actual scarcity would arrive. By 1914, this feeling had been considerably intensified on account of the development of the situation in the American Cotton Belt. Owing to the rising cost of production, particularly the increased labor cost, many of the planters were finding it difficult to make ends meet, especially in those years when, owing to a bountiful

crop, prices were inclined to sag. As the possibility of diversification was increasing, even in those parts of the Belt which hitherto possessed no other money crop but cotton, the compulsion to grow cotton was lessened, with the result that cotton prices had developed a peculiar cycle. A big crop meant a lower price, which was promptly followed by a curtailment of the acreage in the following year. Other things being equal, this meant a short crop and a rise in price again. This state of affairs was unquestionably bad for everyone concerned. The manufacturers and users of cotton had no sooner got accustomed to what they regarded as a reasonable level of prices, which enabled them to increase their output and spread their connections, when the rise of price checked business again. As a result of these conditions it was strongly felt in Lancashire that the world required not merely a steady increase of the total cotton supplies, estimated at about a million bales per annum, *cumulative*, but also that the new sources of supply should, as far as possible, be developed in other parts of the world where the labor supply would be cheaper, and, particularly, where the climatic variations would at least not be the same as those in the United States; so that a bad year in that part of the world might be set off by more favorable conditions elsewhere.

These pre-war conditions were intensified by the war. The first effect of the war in Europe was to cause a heavy fall of prices, which resulted

in a sharp reduction of cotton acreage everywhere (except Russia) in 1915; and roughly speaking, this state of affairs continued in most cotton countries throughout the war, the world's supplies being reduced by about 20 per cent. On the suspension of hostilities it was hoped that there would be a quick return to normal production; but, unfortunately, the post-armistice slump again seriously discouraged the planters, and led to a comparatively small acreage in 1919. As it happened, the weather in the Southern States that year was, on the whole, unfavorable, especially during harvest time, and the crop was well down to the low average of the war—12,218,000 bales, including linters. The trade was therefore in a very bad position to meet the extraordinary increase of demand which broke over the whole world like a tidal wave during the winter of 1919-20. In the case of cotton goods, the difficulty was not primarily raw material, because, owing to the effects of the war and other disturbances, e.g., the devastated areas in France and Belgium, the revolution in Russia, the difficulty of getting raw material into enemy countries, and the reduction of the hours of labor through the general adoption of an eight-hour day, the world's capacity to produce cotton goods was substantially restricted. If it had been otherwise, and the manufacturers had been able to accept anything like the whole of the offers with which they were inundated, the world's available cotton supply would have been eaten up in six months; even as it was, the apparent approach of shortage sent cotton prices sky high, and levels were touched almost equal to the more or less mythical records of the cotton famine of the sixties, and the still higher levels of the early nineteenth century, due to the Napoleonic Wars

and the consequent troubles between England and America.

When the slump came in the spring of 1920, as the result of the adoption of a deliberate policy of deflation in the United States and Great Britain, the cotton trade was one of the first to feel the effects, and middling American cotton in New York fell from 43.75 cents in July, 1920, to 10.85 in June, 1921, which was well below pre-war prices. Once more the old vicious circle came into play. In 1921, the cotton acreage in the United States was again severely restricted, although there is, unfortunately, no certainty as to the extent of the reduction, owing to an extraordinary muddle with regard to the estimates of acreage. But it is clear that the acreage in 1921 was at least 18 per cent less than the figures touched in pre-war years (30,509,000 acres harvested, against 37,089,000 in 1913), and from this area a crop of only 8,375,000 bales (including linters) was gathered, being the smallest crop since 1895, while the average yield per acre, 124.5 lbs., is the lowest on record. Yet even this unprecedented reduction of the supply failed to maintain a sufficiently high level of prices during the winter of 1921-22 to persuade the cotton planters to return to pre-war acreages in 1922. The reason was that, owing to the extraordinary strangulation of demand during the season 1920-21, there remained at the end of that season, an absolutely unprecedented world's carryover of American cotton of nearly ten million bales; while the ideas of the whole trade with regard to consumption had been brought down to such a low level that most people had ceased to consider the comparison with pre-war figures, and were inclined to think that the world had entered upon a new phase of poverty, as the result

of which consumption could never again hope to touch pre-war levels. That idea, however, was quickly modified by the unexpected recovery of the demand during the season 1921-22. The International Federation statistics show that the world's total consumption of American cotton for the season was fully thirteen million bales (including linters), so that the excess of consumption over production had in one season wiped out the abnormal carryover of the previous season. Thus the results of one season, entirely abnormal in regard to demand, had been completely reversed by another, equally abnormal in regard to supply.

It would be out of place here to discuss the general arguments with regard to the policy of deflation; but the one aspect of that question which the writer desires to stress is that, so far as cotton was concerned, the fall of prices was certainly not due to the return of world conditions to a state of normal supply, though the fact of the 1920 crop being relatively large had helped in that direction. As a matter of fact the crop of 13,750,000 bales in that year was the largest since 1914, though still far short of pre-war record figures (17,000,000 bales in 1914). Unfortunately, instead of this recovery continuing, the 1921 crop provided the climax to the whole policy of restriction, and the question now is, what is going to happen in the future?

As regards the immediate future the question turns on the outcome of the 1922 crop. The acreage shows an increase of about 10 per cent, leaving it still distinctly short of pre-war records, but the season so far has been unfavorable, especially in one respect. The disastrously low average yield of the 1921 crop was due very largely to the depredations of the boll weevil; but it now appears that the damage

due to this source may be at least as bad this year, and the fact has to be faced that the boll weevil has introduced an entirely new factor into the problem. This pest has now covered practically the whole Belt, and it has reduced the average yield from somewhere in the neighborhood of 200 lbs. per acre to something nearer 125. The consequences are extremely serious in more ways than one. Such a reduction of the yield per acre means not only a substantial reduction of the world's cotton supply, but it also means that the cost of production of the American crop, which still practically rules the world price of cotton, has been substantially raised. Before the war, the writer had calculated that, unless the price of cotton in New Orleans was about twelve cents a pound, it did not pay many of the growers, especially in Texas. It is impossible to say now what the corresponding figure would be under the changed conditions both of yield and cost of production; but probably somewhere about twenty cents would be nearer the truth, and, even at that price, we cannot hope for an acreage more than pre-war, or a crop of much over ten million bales except in very favorable seasons. Had anyone predicted such a situation in the years before the war, he would have been regarded as a pessimist to the verge of lunacy.

Nor is there any material hope of relief from existing stocks. The world's carryover has now been reduced to about five million bales at the end of the season, as against about four million bales in pre-war times. There may, therefore, be still a small margin available to supplement the shortage of supply for this season, but that is all. It means, in effect, that this year's crop must be approximately sufficient to meet next winter's consumption. What then are

the prospects with regard to the world's consumption in the immediate future?

On this point the trade is well supplied with statistical material. The International Federation for some time before the war had been providing fairly complete and reliable statistics of the consumption of cotton throughout the world, based on direct returns from the actual spinners in every country. As these returns cover a very large proportion of the world's total mill spindles, it is possible to estimate from them the total world's consumption of cotton of all kinds, and to compare these totals with the world's production of cotton in each season. This balance of production and consumption is shown in Table A, annexed. During the period of the war the Federation statistics, of course, could not be collected and the other sources used in this table must be taken with reserve; but it is possible to bridge over that gap in a way, by carrying on the statistics relative to American cotton alone, which are much less likely to be unreliable. This table brings out very clearly the extraordinary fluctuations in the balance, which swings heavily from excessive supply to excessive consumption; and it is very interesting to notice the effect on prices. For this purpose the season's average price of American cotton in Liverpool is given, and also (in order to get rid, as far as possible, of the effects of inflation) the same figures discounted by the general level of prices, as shown by the Board of Trade Index Numbers.

For the present, however, the most interesting point is to compare the post-war consumption with the pre-war, and statistics for this purpose are given in Table B, showing separately the world's mill consumption of American cotton alone, and of all kinds. Roughly speaking, the result

is as follows: during the boom of 1919-20 the world's consumption rose to about 83 per cent of the pre-war figures, the shortage being largely accounted for by the reduced hours of labor, but the distribution of the total throughout the world was very unequal. Great Britain was 82 per cent, the Continent only 41.6 per cent but America was 112 per cent and the rest of the world 114.5 per cent. In the following season, 1920-21, which covered the worst of the slump as well as the coal and cotton strikes in England, the world's total was 78.4 per cent. England being down to 47.4 per cent, while the Continent had risen to 60.3 per cent. The United States had fallen back to 85 per cent, but the rest of the world was now up to 126.2 per cent. But during the season now just closed, namely, to July 31, 1922, an extraordinary recovery was made, the world's total being 92.5 per cent, while England was 67 per cent and the Continent 68.0 per cent. The United States was 103.1 per cent while the rest of the world was 140.4 per cent. As a matter of fact, the figures of the second half year to July 31, 1922, were even better than those for the whole season, the improvement having been progressive throughout.

From these figures, it will be seen that while the slump of 1920-21 very seriously affected the industry in Great Britain and the United States, the rest of the world was still going steadily ahead during that period. In other words, the countries which applied the doctrine of deflation had to suffer very severe trade depression, which did not affect the oriental countries to anything like the same extent, while most of Europe escaped any such depression by continuing more or less their policy of inflation.

It remains then to apply these facts in the attempt to forecast the probable future. So far as England and

the United States are concerned, the period of deflation is now apparently over, and, barring anything entirely unforeseen, they may be expected to continue the process of recovery which has been going on for the last twelve months. It must be remembered, too, that American consumption is now a good deal more than pre-war, their spindleage having been increased by 17.3 per cent since 1913. The position of India and Japan and other non-European countries is similar, their spindleage having been increased by 40 per cent (4,982,000 spindles); but this means a relatively large increase of consumption, because these countries use more bales of cotton per thousand spindles than any other countries in the world, and Japan and India are still laying down new spindles as fast as they can get them. India, particularly, is apparently determined to follow out the policy of protection of her local industry. As for the Continent of Europe, it is very probable that Germany and other countries in a similar position, where the industry has lately enjoyed a fictitious prosperity, will have to face a very bad time when their process of deflation or stabilization of currencies begins; but whether the consequent reduction of their consumption will be serious from the point of view of the world's total, it is difficult to say. As regards England, she has much to gain and probably something to lose from the developments which still lie in the future. It is very noticeable that during the past season her exports to India, first of yarns and then of piece goods, have shown a most astonishing recovery, but whether this is likely to continue or not, it would be very hard to say. On the whole, however, the probability is that England's consumption will not again sink below recent

figures, unless prices rise high enough to check consumption seriously.

One other important country is Russia, where the consumption of cotton in pre-war days was very substantial, but statistics in Russia are now of almost no value. In any case, the importance of Russia's position in the world's consumption is greatly minimized by the fact that a considerable part of her consumption was local cotton grown in Transcaucasia and Russian Turkestan, and that crop has suffered, if anything, a more complete eclipse than the Russian cotton industry. The one, therefore, may be set against the other, and, practically speaking, Russia might almost be excluded from the world's statistics. As it is, she is only credited in Table B with 1,100,000 active spindles, as against 9,213,000 before the war.

To sum up, the recovery of the world's consumption during the past year has been much more rapid than any one expected, and the world is now consuming cotton at the rate of more than 90 per cent of the 1912-13 figures, while the production of cotton in 1921 was only at the rate of about 70 per cent, and this year is not likely to exceed 75 or 80 per cent of the 1912-13 crops. It does not need much arithmetic to realize that this is a state of affairs which cannot continue. If the world's crops do not, within the next year or two, make a very remarkable recovery from their recent low figures, then the world will simply be compelled to reduce its consumption by the fact that the cotton will not be there to consume! Then the old laws of supply and demand will have to settle the question again, and the price will have to rise to such a height as will limit the consumption to the supply available. He would be a bold man who would prophesy what that price will be.

TABLE A—BALANCE OF PRODUCTION AND CONSUMPTION, 1904-22
(in running bales—000's omitted throughout)

Season	World's Active Spindles (000's)	World's Crops and Consumption			American Crop and Consumption Thereof			Season's Average Price of American Middling Cotton in Liverpool	
		Mean Commercial Crop*	Mean Mill Con- sumption*	Balance	Crop (Census Bureau)	Consumption (Hester)	Balance	Actual (in pence per lb.)	Discounted
1904-05.....	.....	19,295	16,669	+ 2,626	13,697	12,664	+1,033	4.93	5.03
1905-06.....	115,380	16,927	17,621	- 694	10,726	12,081	-1,355	5.94	5.78
1906-07.....	120,176	20,554	18,892	+ 1,662	13,305	13,203	+ 102	6.38	5.94
1907-08.....	128,959	17,140	18,615	- 1,475	11,326	12,112	- 786	6.19	5.92
1908-09.....	131,503	19,780	19,162	+ 618	13,432	13,157	+ 275	5.50	5.31
1909-10.....	133,384	16,888	18,408	- 1,520	10,396	11,754	- 1,368	7.86	7.38
1910-11.....	137,279	18,528	19,354	- 826	11,066	12,054	- 888	7.84	7.19
1911-12.....	140,693	21,699	20,763	+ 936	16,109	14,515	+ 1,594	6.09	5.43
1912-13.....	143,453	20,883	21,012	- 729	14,091	14,715	- 624	6.76	5.43
1913-14.....	.....	22,441	21,250	+ 1,191	14,614	14,541	+ 73	7.26	6.21
1914-15.....	.....	23,168	20,361	+ 2,807	16,738	13,834	+ 2,904	5.22	4.00
1915-16.....	Number of spindles	18,816	20,844	- 2,028	12,013	14,812	- 2,799	7.51	4.55
1916-17.....	not ascertainable	19,311	21,355	- 2,044	12,664	13,906	- 1,242	12.33	5.74
1917-18.....	active spindles	18,042	18,829	- 787	12,345	12,282	+ 63	21.68	8.60
1918-19.....	.....	17,936	18,260	- 324	12,817	10,535	+ 2,282	19.73	7.00
1919-20.....	133,279	19,669	19,243	+ 426	11,921	12,670	- 749	25.31	7.51
1920-21.....	141,485	18,775	18,376	+ 399	13,700	10,500	+ 3,200	11.89	3.94
1921-22.....	147,433	15,000†	21,150‡	- 6,150	8,375	12,804	- 4,429	11.37	5.67

* For details see statistics in "Official Report of the World Cotton Conference, Liverpool, 1921."

† Estimated.

‡ Federation figures only, not including linters in U. S. A.

TABLE B—TOTAL WORLD'S CONSUMPTION OF COTTON, 1912-21
 (a) American (b) All Kinds
 Calculated from the Returns of the International Cotton Federation
 (in running bales—000's omitted)

Country	Year to August 31, 1913			Year to July 31, 1920			Year to July 31, 1921			Year to July 31, 1922		
	Active Spindles	Consumption		Active Spindles	Consumption		Active Spindles	Consumption		Active Spindles	Consumption	
		American	Total		American	Total		American	Total		American	Total
Great Britain	55,653	3,607	4,274	56,900	2,891	3,513	56,141	1,078	2,024	56,605	2,277	2,864
Percentages on 1913				102	78.5	82	101	45.6	47.4	101.7	62.1	67.0
Germany	11,186	1,355	1,700	5,620	382	521	7,620	644	897	9,500	911	1,194
France	7,400	806	1,010	7,360	671	822	7,647	583	726	8,478	799	1,037
Russia	9,213	487	2,508	No statistics			750	.....	926	1,100	25	623
Poland and Finland	Included	under Russia		989	61	73	1,401	125	162	1,439	203	254
Austria	4,909	627	837	No statistics			1,140	54	94	1,023	87	113
Czecho-Slovakia	Included	under Austria		1,603	86	98	3,583	208	260	3,549	308	369
Italy	4,600	571	790	4,340	549	740	4,506	562	795	4,560	572	800
Spain	2,000	285	358	1,800	305	390	1,806	224	298	1,806	294	363
Belgium	1,492	171	257	1,467	159	235	1,548	113	211	1,630	136	243
Switzerland	1,398	65	98	1,460	57	84	1,531	55	83	1,519	55	88
Other European	1,658	272	314	1,815	272	311	1,803	235	297	1,860	222	282
Total Continent	43,856	4,639	7,872	26,454	2,542	2,274	32,585	2,803	4,749	36,464	3,612	5,366
Percentages on 1913				60.3	54.8	41.6	74.3	60.4	60.3	83.0	78.1	68.0
U. S. A.	31,505	5,553*	5,719	35,499	6,010†	6,425†	36,478	4,672†	4,860†	36,943	5,615†	5,896†
Percentages on 1913				112	108	112	116	84.5	85.0	117.3	101.1	103.1
India	6,084	94	2,177	6,420	0.5	2,046	6,763	27	2,243	6,871	55	2,314
Japan	2,300	425	1,589	3,155	709	2,084	4,127	622	2,122	4,646	795	2,372
Canada	855	113	113	681	118	118	1,100	147	149	1,051	156	156
Others	3,200	16	1,121	4,170	.....	1,480	4,391	79	1,706	4,853	239	2,182
Total	12,439	648	5,000	5,000	827	5,728	16,281	875	6,310	17,421	1,245	7,024
Percentages on 1913				115.9	128.6	114.5	130.9	135.0	126.2	140.1	192.1	140.4
World's Total	143,453	14,507	22,865	133,279	12,270	18,940	141,485	10,028	17,943	147,433	12,748	21,150
Percentages on 1913				93	84.5	83	98.8	69.1	78.4	102.7	87.8	92.5

* Including linters, 303,000 bales.
 † Not including linters, 342,000 bales in 1919-20
 516,000 " " 1920-21
 594,000 " " 1921-22.

Book Department

ALLEN, GEORGE H. *The French Revolution*. Vol. I. Pp. 340, illus. 81. Price, \$10.00. Philadelphia: George Barrie's Sons, 1922.

This volume one is the first of four volumes in which Dr. Allen serves as historian to the French Revolution. Volume one treats of the prelude to the French Revolution. The first chapter discusses the growth of the French nation; the second and third the splendor of the Bourbon Monarchy in France and the degradation of the Monarchy; while succeeding chapters discuss the relation of church to state; monarchy in the eighteenth century; the intellectual movement of the eighteenth century; the consequence of the American War; futile attempts to meet the financial situation which threatened bankruptcy; the calling of the States General; and the taking of the bastille.

The careful student will be much depressed by the publisher's note which introduces this volume. This bombastic introduction reads more like the prospectus of a real-estate speculator than the introduction to a scholarly book. Moreover, the English of this bombast is as poor as the note is in bad taste. The author, however, usually expresses himself in simple English. Some of the chapters are unsatisfactory. For instance, one chapter is devoted to Louis XVI and Marie Antoinette. One-third of the chapter describes in general terms these two personages, the other two-thirds of the chapter being devoted to fiscal reforms. And in the slight space given to Marie Antoinette we learn of the author's opinions about her as distinct from the facts. Thus we are told that her "thoughtlessness and indifference to convention involved her in endless troubles and much unpopularity." (p. 163). We are further advised that "although she never ceased to be a virtuous wife, her conduct encouraged gossip and gave rise to many public scandals." Most of the readers would like to have some of the facts on which such statements are

based. The desire of the author to make his work interesting often leads him into the error of giving generalizations without any basis in fact for the support of his generalizations.

The type of the book is large, clear and easy to read. There are numerous illustrations, all admirably printed. As a popular presentation of the factors and causes underlying the French Revolution, the volume should serve a useful purpose. The French Revolution will never cease to be of outstanding interest to all students of social and public life. The reviewer hopes that some day a scholar versed in the social sciences will make an analysis of the French Revolution from the point of view of the social processes, of which the romantic events of the revolution were but symptoms.

PROCTOR, ARTHUR W. *Principles of Public Personnel Administration*. Pp. 244. Price, \$3.00. New York: D. Appleton and Company, 1921.

This volume is devoted to a discussion of the facts and principles underlying the securing and maintaining of an official personnel in public administration. The author has been a member of the New York Bureau of Municipal Research and undertook the investigations leading toward this volume for the Institute for Government Research of which Dr. W. F. Willoughby is director. This volume forms one of the splendid series of publications put out by the Institute for Government Research.

The volume includes a discussion of the history of public employment; the legal status and organization of a Civil Service Commission; the purpose and results of standardization of public employment; and the recruiting and selection, training, rating, control advancement and promotion of public officials. The book covers in an acceptable form the traditional methods of Civil Service selection and administration. So far as the subject matter treated is concerned, legislators, public officials

and interested students will find the volume valuable and suggestive. The author, however, does not attempt to set up a standard of practices for public personnel service that will tend to secure morale and competency in public administration as distinct from the prevention of evil doing by political progers.

STAMP, SIR JOSIAH, D. SC. *Wealth and Taxable Capacity*. Pp. 195. Price, 10s. 6d. London: P.S. King & Son, Ltd., 1922.

This book comprises the lectures given in February, 1921, at the University College upon current statistical problems in wealth and industry. The lectures analyze methods of using the chief statistical data available in the consideration of problems of wealth and industry, and outline some of the elementary principles involved in the estimating national capital and national income in their relation to prices, taxation and public debts.

The most interesting and suggestive of the lectures, especially to Americans, is the one devoted to "The Limits of Taxable Capacity." Many of the standards for testing the limit of taxable capacity are set up and examined. One is to get the aggregate national income and deduct there from the aggregate subsistence level, assuming that in case of need all the rest could go for public preservation in the form of taxation. This test of taxable capacity is relative, not merely to our production, but also to how much we desire to save and how little we are prepared to consume. In describing this and other limits of taxable capacity, the author sets down in the volume reasons why the limit of taxable capacity can never be an absolute or fixed figure; it depends upon what the taxation is to be used for; it depends upon the spirit and national psychology of the people taxed, which may be influenced by patriotism or sentiment; it depends partly on the way the taxation is raised, both as to the methods adopted and the rate at which the increase is laid on; it depends upon the distribution of wealth; its rate of increase is greater than the rate of increase in wealth, and it shrinks more rapidly than the wealth diminishes.

WARSHAW, J., PH. D., Professor in the University of Nebraska. *The New Latin American*. With an introduction by James E. LeRossignol, LL.D., Dean of the College of Business Administration, University of Nebraska. Pp. 415. Price, \$3.00. New York: Thomas Y. Crowell Company, 1922.

This is an exceedingly illuminating and helpful book and will be of great service to the general reading public, as well as to those who are planning to give courses on Latin American affairs in our universities. With Dr. Warshaw's book available, there is no longer an excuse for the failure to make the study of Latin American affairs an integral part of our university curriculum. The book is most comprehensive in content, dealing not only with the political, but also with the social and economic aspects. It is, therefore, a particularly valuable book to place in the hands of university students. It should also enjoy wide circulation among the general public, as it is designed not only to interest, but to enlighten the general reader. Dr. Warshaw has done a real service in making this volume available to the American public.

BOGARDUS, EMORY S. *A History of Social Thought*. Pp. 510. Price, \$3.50. University of Southern California Press, 1922.

The term "social thought," as used in this book, is taken to mean "a synthesis of the observations of individuals about the welfare of individuals, considered as individuals or as groups," thus including the "larger social field as well as the more specific one of recent development, namely, the sociological." It is the author's judgment that "the time is hardly ripe for a history of distinctly sociological thought."

Writing a history of social thought, thus conceived, is a stupendous undertaking, for it must begin with a recognition of the social nature of many of the proverbs, maxims, fables and myths of primitive folk, and it ought to close with a survey of the chief trends in present-day sociological thought. Between these two ex-

tremes, in point of time, there is an almost overwhelming abundance and diversity of material. It is this material which Dr. Bogardus, who is head of the department of Sociology at the University of Southern California, attempts to cover and to classify in the twenty-eight chapters which comprise this volume. Among the chapter titles are the following: "The Social Thought of Ancient Civilizations," "Plato and Grecian Social Thought," "Roman Social Thought," "Social Thought in the Middle Ages," "Anthropologic Sociology," "Eugenic Sociology," "Psycho-Sociologic Thought" and "The Rise of Educational Sociology." There are separate chapters on some of the leading modern writers such as Malthus, Comte, Marx, Buckle, Spencer and Ward.

"Sound social thought needs to be democratized, that is, to be made available for all people." These words indicate the nature and purpose of this volume. It aims to present in a popular, readable form to a world of students the best in the world's social thought. Judged by this purpose, it is an interesting effort in a commendable direction.

JAMES H. S. BOSSARD.

AMERICAN RAILWAY ASSOCIATION, Proceedings of the Session of the. Telegraph and Telephone Section. Held at The Jefferson, Richmond, Va., March 21, 22, and 23, 1922.

NATIONAL CHILD LABOR COMMITTEE, under the direction of *Edward N. Clopper*, Ph. D. *Rural Child Welfare*. Pp. 355. Price, \$3.00. New York: The Macmillan Company, 1922.

Twenty years ago, approximately, the growing city and the industrial system captured the imagination of the American people. Since then, the problems which they have created have monopolized our attention and our best effort. The problem of the rural child, like other problems of rural life, has been neglected in favor of its urban complement. City people are prone to romance about the sunshine and pure air and singing birds of country

life, not realizing the tremendous burdens and handicaps of rural childhood in numerous communities where the aggressive element has left the farms for the city, or where the tide of civilization has been slow to penetrate.

Along comes this timely volume to remind us, with all the force of a new discovery, that home life may be as inadequate, depressive and unwholesome in the open stretches as in the congested city; that agricultural child labor is the commonest, even if the least known, form of child labor; that, in spite of all the natural facilities in country life, the rural community is a playless and recreationless community; that juvenile dependency, illiteracy, truancy and delinquency are as rife in the country as in the city, and more dangerous because so largely unattended.

This book is distinctly a laboratory instead of an armchair product. The facts presented are based upon a study of conditions in West Virginia, conducted by the National Child Labor Committee. Eleven communities in as many different counties, including a variety of types and conditions of rural life that is probably representative of rural conditions all over the country, were studied by field workers who, instead of spending a week or two in a superficial survey, as has too often been the "custom of our caste," lived a sufficiently long time with their facts to fathom them. The material is classified and analyzed under seven chapter-headings which, together with an introductory chapter on the "Rights of Childhood" by Edward N. Clopper, under whose direction the study was made, comprise the volume.

To scientific students, the study stands out as a model in its combination of painstaking inquiry, of exact thoroughness, of manifest fairness and of deep sympathy. To well-intentioned people who are anxious to promote child welfare, but who are ignorant of the facts and of their proper determination, it is a revelation. Those familiar with the facts, but who have kept profoundly silent or Levite-like have passed by on the other side, this plain, truthful, unexaggerated story ought to galvanize into constructive action.

JAMES H. S. BOSSARD.

LATANÉ, JOHN H. *From Isolation to Leadership*. Revised. A Review of American Foreign Policy. Pp. 296. Price, \$1.20. Garden City: Doubleday, Page and Co., 1922.

Retaining its original title and supplementing its former chapters by two new ones, the publishers of Professor Latané's "Review of American Foreign Policy" have wisely met the demand for a new edition of this valuable little volume. In doing so they have made available for college and high-school courses what is doubtless the best brief survey of the foreign relations of the United States in the light of modern tendencies.

Professor Latané first examines the origin of the policy of isolation and shows that it is in principle quite distinct from the Monroe Doctrine. The one could be abandoned by a treaty with a foreign power which had for its object the enforcement of the other. The Monroe Doctrine itself was asserted with the backing of Great Britain and has been maintained with its indirect aid. Moreover, the facts of American coöperation in the work of international conferences point in the opposite direction to isolation, while the failure of the United States to maintain the open door in China was due to its inability to coöperate with Great Britain and Japan against Russia.

The review of Anglo-American relations undertakes to show that the numerous controversies between the two countries have not been based upon any fundamental conflict of aim and purpose in the larger things of life. In the present edition the chapter on the "War Aims of the United States" has been rewritten, and two new chapters, dealing respectively with the Treaty of Versailles and the Washington Conference, have been added. Of these last two, the former is a well-balanced statement of a debatable subject, while the latter shows conclusively that "the Four-Power Treaty is much more of an entangling alliance than the Covenant of the League."

Professor Latané is aware that the title of the volume is at present inappropriate, but he does not "regard the verdict of

1920 as an expression of the final judgment of the American people."

C. G. FENWICK.

THE OFFICIAL REPORT OF THE NINTH NATIONAL FOREIGN TRADE CONVENTION. (Held at Philadelphia, Pa., May 10, 11, 12, 1922; and issued by the Secretary, National Foreign Trade Convention Headquarters, India House, Hanover Sq. N.Y.)

Perhaps the most vivid impression gained from reading this volume is that of the deep ethical undertone of the whole motif of Internationalism. It is to be taken for granted that the intellectual levels are distinctly higher than one would expect from a collection of papers by the average type of politician who makes his living at the business, but here we find the sense of moral obligation to a stricken world put forward not only as good business, but as a duty. From the opening address of President Farrell on through to the end, it is evident that there is a disposition and willingness to see the world whole, and as it is; the economic situation in the United States with reference to the crying world-need and the interests of the American people. Mr. J. T. Holdsworth of the Bank of Pittsburgh does not see an unmitigated blessing in the fact that we have doubled our gold holdings since 1915, that we now have in our vaults nearly three billions, or 40 per cent of the world's available supply, with the combined reserves of the Twelve Reserve Banks standing at about 77 per cent, with that of the Bank of England at 17 per cent, and for the other central banks of Europe ranging down to nothing. "We who have most," he says "must share with those who have little or none." "We must keep steadily in mind that in order to sell we must buy." In summing up the general chaos in which the war left us, W. F. Gebhart, of the First National Bank of St. Louis, speaks of the responsibilities of the American Banks to foreign trade. It is as if a rock had been thrown into a modern machine.

"Sabotage on a world scale has been practised. . . . The basis of credit . . . has been de-

stroyed. . . . The currency system . . . is wrecked. The transportation system . . . is demoralized. Political jealousy, fear and hatred among nations have arisen. Worst of all there is a pathetic absence of constructive thinking and plans to restore world trading. . . . The relation of the American banker to this work . . . is of outstanding importance."

One of the best things in the book is the analysis of the Inter-Allied Indebtedness in the paper of Mr. Fred I. Kent of the Banker's Trust Co., of N. Y. If his conclusions could be summed up in a single sentence it would be in this: "Should it be found on examination that some round percentage, such as say 60 per cent of the loans made our Allies, could fairly be considered by this country as having gone primarily for its own service, and if we should then come to some agreement with our Allies under which their governments would coöperate with this country towards bringing order out of the present economic chaos which exists, the good to this country and to the world would be inestimable."

FRANK BUFFINGTON VROOMAN.

DRURY, AUBREY. *World Metric Standardization: An Urgent Issue*. Pp. 525, illustrated. Price, \$5.00. San Francisco, Cal.: World Metric Standardization Council, 1922.

A volume of testimony urging worldwide adoption of the metric units of weights and measures-meter-liter-gram.

LAUCK, W. JETT, AND WATTS, CLAUDE S. *The Industrial Code*. Pp. 578. Price, \$4.00. New York: Funk & Wagnalls Company, 1922.

The authors of *The Industrial Code* were active participants in the work of the National War Labor Board. Their experience convinces them that certain fundamental principles underlying industrial relations lead toward social progress and industrial peace. Arbitrations or settlements not based upon any principles, they regard as barren expedients. The success of the National War Labor Board in keeping production at a practically uninterrupted maximum is attributed

in part to the incorporation of some of these principles in its "constitution." Since the Armistice some of these principles have been challenged and fought. The proposed industrial code is a bill of rights to guide industrial tribunals. The code amounts to a standard required by public policy. Its elements are found in the pronouncement of leading statesmen and economists in existing trade agreements in various countries, in the labor provisions of the Versailles Treaty, and the structure of the War Labor Board. The proposed code reads:—

To the end that there may be peace in industry with equal and exact justice to capital, to labor and to the public, and to the end that there may be uniformity and regularity of employment and that production may be stabilized and stimulated, these principles are proclaimed as the bases of all relations between employer and employed and of all adjustments of such relations.

1. The right of employers and employees to organize is recognized and affirmed. This right shall not be denied, abridged, or interfered with in any manner whatsoever, nor shall coercive measures of any kind be used by employers or employees, or by their agents or representatives, to compel or induce employers or employees to exercise or to refrain from exercising this right.

2. The right of employers and of employees to bargain collectively through representatives of their own choosing is recognized and affirmed.

3. The right of all workers to a living wage, with differentials for skill, experience, hazards of employment and deficiencies, is recognized and affirmed.

4. Eight hours is recognized as the standard work-day and six days as the standard work-week. If conditions render the application of the standard work-day and work-week impossible or impracticable, then the basic eight-hour day and 48-hour week shall prevail, with payment for overtime or extra time at a rate in excess of the basic hourly or weekly rate.

5. The right of women to engage in industrial occupations is recognized and affirmed; their rates for pay shall be the same as those of male workers for the same or equivalent service performed; they shall be accorded all the rights and guarantees granted to male workers, and the conditions of their employment shall surround them with every safeguard of their health and strength and guarantee them the full measure of protection which is the debt of society to mothers and to potential mothers.

The authors doubt whether such a code will be adopted by agreements between employers and employees and regard legislative sanction as necessary. The Kenyon Bill (introduced in the U. S. Senate February 13, 1920) to provide for the settlement of disputes in the coal industry is cited with approval, and also the bill to revive the National Labor Board based upon a similar code. It is heartening to believe with the authors that such principles bear the same relation to the rights and duties of employer and employee as political constitutions bear to the rights and duties of all citizens. "Industrial peace may be an ideal, but for centuries political liberty was only an ideal."

The great value of this book lies in the debate it engenders and in focussing attention upon the fundamental questions at issue. All these principles represent a gain for labor and presumably for society and are acquiesced in by a number of employers, though not by the most vocal groups of the moment. The casual reader will be surprised by the number of statements of principles adopted by Chambers of Commerce, Labor organizations and public groups since the war which include some of these principles. A prudent man will not argue for or against the "open shop" or the "closed shop" without noticing from these statements the several definitions of each and their effects. The authors have done a real service in assembling these statements in an appendix which constitutes nearly half the book. These documents show that the search for an agreement upon an industrial code is proceeding under great pressure and is of paramount interest to the industrial leaders of the United States. The documents in the appendix constitute a section of industrial history since the war which every student will appreciate in such convenient form.

OTTO T. MALLERY.

DODD, WALTER F. *State Government*. Pp. xiii, 578. Price, \$3.75. New York: The Century Company, 1922.

In this, the fifth volume of the Century Political Science Series, Dr. Dodd has employed a method of approach significant

of recent political theory. The book, to let it speak for itself, "seeks to treat state governments, not as something independent, but as the units that go to make up the nation. . . . The work of government is a single task to be done through carefully planned and organized machinery, and by means of careful coöperation in nation, state and local area." (pp. 11, 14). Such an approach lends a basis for a realistic discussion of the administrative problems that have recently come into prominence. The enforcement of prohibition and the development of national subsidies are two outstanding instances. These pose the problem: What is the proper area for the execution of an adopted policy of governmental supervision? Though Dr. Dodd realizes the problem, his treatment is formalistic. Burdened with the task of establishing a thesis, the author's conclusions in this matter are rather anemic.

In the field of the relations between state and local governments, Dr. Dodd is more successful. Here he has more adequately shown the nature of the problem, and more clearly indicated means of solution.

The solution may be summed up in the word Simplify. This, indeed, is the keynote of Dr. Dodd's plea. Recognizing that the work of government has increased, and will in all probability grow in the future, complexity of organization is inevitable. But complexity does not necessarily involve confusion and irresponsibility, though these we now have with us. By making the channels of control clear, the multitude of activities of government should become unified. Policy will be intelligent and intelligible.

To achieve this unity, Dr. Dodd would simplify the structure of government. It is for this reason that he would have a brief constitution confined to matters of really fundamental importance, as opposed to a lengthy constitution whose details must be amended through popular vote at frequent intervals.' (p. 124). It is for this reason that he advocates a unicameral legislature, a unified court system such as that proposed by the American Judicature Society, the short ballot, an extension of administrative rule-making power. For the same reason, local areas

should be so organized that the inhabitants of each community shall be controlled by but one local governing body. (p. 566). The governor should not only be charged with the preparation of consolidated financial estimates, but also with the responsibility for a comprehensive legislative program, and should be furnished with a reorganized administrative system whereby such policies could be executed under responsible supervision. This administrative system should provide not only for supervision and control of the central activities, but also for central supervision of those activities in the hands of local bodies which are function of state nature rather than local.

In short, Dr. Dodd has a well-rounded scheme, based upon illuminating analyses of existing confusions. The chapters on "The State and Its Subdivisions," the "State Executive," and the "Organization of the Courts," are perhaps the best in the book. Those on public opinion are least satisfactory. Dr. Dodd has planned the work with care; the first three chapters present the thesis upon which rests the whole; while the chapters describing conditions contain running commentaries more suggestive of actuality than may be found in any other book on state government. The dull spots, and there are too many, seem the result of a somewhat unsuccessful attempt to put between the same covers a philosophy and a student's text. The

conciseness proper in a brief is frequently sacrificed to the assumed need for paragraph headings. Prolixity perhaps suitable for an introductory reader is incompatible with the punch due a program. Yet, though not comparable with Masterman's distinguished and delightful *How England is Governed*, the volume has the freshness of life, coming from the fact that the author regards his subject as living. The book is easily the best survey of the field yet made. It should do much to dispel the bogey that has lived long with the study of state government.

ALLAN F. SAUNDERS.

ALBRIGHT, GEORGE LESLIE. *Official Explorations for Pacific Railroads*. Pp. vii, 187. Price, \$1.50, in paper cover. Berkeley, California: University of California Press, 1921.

CONTENTS: Editor's Note, Preface, Chapter I, Introductory, Chapter II, Plans for Transcontinental Roads, Chapter III, Preliminaries to the Explorations of 1853-1855, Chapter IV, Stevens's Explorations between the Forty-Seventh and Forty-Ninth Parallels, Chapter V, Explorations for a Central Route, Chapter VI, Whipple's Explorations along the Thirty-Fifth Parallel, Chapter VII, Explorations for a Thirty-Second Parallel Route, Chapter VIII, Explorations for Routes in California and Oregon, Chapter IX, Conclusion, Bibliography, Index.

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ATTENDANCE IN FOUR TEXTILE
MILLS IN PHILADELPHIA

BY

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PREFACE

THIS study was started in connection with the standardization of records at one of the textile plants with no intention of using the data for publication. The inclusion of other plants and a continuous record over a considerable period of time gave to the conclusions with regard to attendance, facts which seemed to be of wider general interest than that of the personnel of the plants involved.

No attention is given to methods of reducing absence. The emphasis in the study is upon ascertaining the extent and amount of lost time. The variation in attendance in its relation to production is considered with a view to determining the effect of the fluctuations from time to time in planning and routing work.

Especial acknowledgement is due to Beatrice Wood, Elizabeth Lundy and Elizabeth Lockwood for the work of calculation and preparation of tables; to Marjorie Crossingham and Harold Denison for the drafting of charts; to Miriam Hussey for help with all parts of the study as well as for reading and revision of the manuscript.

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INTRODUCTION

IN discussing the turnover of factory labor, Professor Slichter took as his fundamental thesis the "neglected truism that a definite plan and specific responsibility for creating and executing the plan are as necessary in dealing with labor as in controlling manufacturing operations."¹ There is still need for stressing the place of analysis of labor data in conjunction with central control over operations.

From the point of view of planning manufacturing operations, irregularity of attendance is frequently of as great an importance as terminations of employment. The problem has received less attention, because the effects of lost time are less immediate than those of final exits. Considered as a question of cost, breaks in employment due to absence are, in many cases, of as much importance to plants as are breaks in employment due to turnover. Because the loss is distributed, it is often given little attention. There are fewer estimates available concerning lost time than can be cited for turnover. It is not claimed that absences should be reduced to a minimum. Some absences are necessary in order that employees may attend to their duties as citizens, and as members of families; some absence for rest is desirable and, if taken in time, it probably shortens the length of individual absence for actual sickness. How great is the extent of absence for these reasons can be judged only in terms of the type of operation and the usual experiences of plant managers who have worked in the direction of preventing the causes of irregular attendance. In many ways the matter of attendance of employees

in industrial establishments is bound up with regularity of employment, with labor turnover and with plant discipline and control. Where work is irregular less stress can be put upon the desirability of employees reducing all unnecessary gaps in attendance. In recent years attention to the problem of lost time has come mainly through its effect upon turnover—an approach which has importance but which is of less significance than the question of planning production. The stress upon the effect of preventive measures in connection with turnover has meant that the attendance organization was built up at a time when production problems were most pressing and labor shortage was at its maximum. The seasonal variation in absenteeism and the actual cost of lost time in the aggregate have been less a motive than the retaining of employees in the organization. An important aspect of the problem is regularity of work and its relation to stabilization of production.

SHOP DISCIPLINE FORMERLY CONTROLLED BY WORKERS

In the early years of modern factory organization, labor turnover and attendance were controlled by the shop workmen and only slowly taken over as a function by the management. Even at the time Babbage wrote, in 1828, new employees paid a fine to reimburse the older workers for the time devoted to initiating them into the system, new to them, of the shop. He says:

It is usual in many workshops, that, on the first entrance of a new journeyman, he shall pay a small fine to the rest of the men. It is clearly unjust to insist upon this payment; and when it is spent in

¹ Slichter, Sumner H., *The Turnover of Factory Labor*. Preface, p. VIII.

drinking, which is, unfortunately, too often the case, it is injurious. The reason assigned for the demand is, that the new comer will require some instruction in the habits of the shop, and in the places of the different tools, and will thus waste the time of some of his companions until he is instructed. If this fine were added to a fund, managed by the workmen of the establishment, and divided at given periods, or destined for their relief in sickness, it would be less objectionable, since its tendency would be to check the too frequent change of the men from one shop to another. But it ought, at all events, not to be compulsory; and the advantages to be derived from the fund to which the workman is invited to subscribe, ought to be his sole inducement.²

More serious was the question of attendance. Workers strolled in and out in ways which seemed to the methodical Wedgwood to be lazy and shiftless. Manufacturers started the practice of ringing bells, tooting horns and later blowing whistles to signal the time of starting. Smiles describes vividly how "the potters had been summoned to their labors by sounding a blast on a cow's horn." The sound did not travel very far; and the workmen used to loiter lazily into the works just as they pleased, everything apparently going on in a very indifferent manner. But Wedgwood adopted a better plan. Between 1760 and 1770, he erected a cupola containing a loud bell, the sound of which travelled very far; and thus the working people were called more rapidly together.

One of Wedgwood's principal difficulties, as with all employers in those days, was the management and discipline of his workmen. They were irregular in their habits, disposed to be lazy, and there was a consequent lack of order in the work-rooms.³

² Charles Babbage, *Economy of Machinery*, 1828, p. 213.

³ Samuel Smiles, *Josiah Wedgwood*, p. 46.

When the Manchester canal was being extended, the Duke of Bridgewater provided dwellings for the colliery workmen. He used fines as well as awards for attendances.

The steadiest workmen were allowed to occupy the best and pleasantest houses as a reward for their good conduct.

Still irregularity continued especially on Mondays.

In order to put a stop to idle Mondays, he imposed a fine of half-a-crown on any workman who did not go down the pit at the usual hour on that morning.⁴

METHODS FOR PREVENTION OF ABSENCE

General use of clocks and the shortening of hours have helped to reduce the problem of tardiness which may now be regarded as a matter of individual shop discipline rather than a problem of general importance. Payment of bonuses, and award of prizes is still used to stimulate regularity in attendance. A few companies grant vacations with pay to employees with little lost time. The tendency of writers has been to raise objections to the attendance bonus, which is a reward of some percentage of wage for attendance over a predetermined period. Diminishing absence by granting vacations on the basis of attendance has been effective in some cases. The practice of fining employees is rather generally condemned. Mr. Hackett in an article on absenteeism writes:

The imposition of penalties appears to be an attack upon the problem of absenteeism from the wrong end. Workers, whose bonus is commuted or who are fined for absence, feel that their obligation is discharged and there is no further incentive to be regular. The wage loss incurred by

⁴ Samuel Smiles, *Lives of the Engineers*, London, 1862. Vol. I, p. 407.

absence is in the nature of a fine and the further loss of a small percentage is not much of a deterrent. If it is a question between rewards for attendance or penalties for absence, the former is to be preferred.¹

From the latter statement one may gather that Mr. Hackett does not accept the attendance bonus plan unqualifiedly. He holds that:

Several valid objections exist against the use of the attendance bonus. Wages are paid for attendance and the doling out of an additional sum is, in effect, an acknowledgement that the rate is insufficient to keep a man on the job. But, whether logical or not, a man who loses his bonus for two or three months because of a day's unavoidable absence feels he has a grievance and is careless for the remainder of the bonus period. Thus the bonus introduces additional friction.²

Only recently has absenteeism been approached from the point of view of prevention of the main causes of absence. Realizing the effect of lost time in lowering efficiency, companies have introduced follow-up work and a general study of causes of absence with a view to dealing constructively with such causes as are preventable. The development of industrial medical work has been especially beneficial in the reduction of time lost on account of illness. Where home visiting is done tactlessly, or where the system is rigidly superimposed, workers have objected to the visiting. The follow-up of employees and the care of health furnishes a record of sickness and accidents and makes possible some attention in the home to those absent for health causes. In connection with this work, records of absence have been found an aid in encouraging regularity as well as a means of stabilizing the planning of production.

¹ Hackett, J. D., *Absenteeism: A Quantitative Study*, p. 5.

The following notice, sent by the Hood Rubber Company to its foremen and department heads in introducing their absentee visiting work, shows in general the way such work is carried on:

We are about to make a more extensive study of the absentee problem throughout the entire plant and must ask for coöperation on the part of the foreman in furnishing prompt reports of all employees absent. We have drawn up for this purpose a daily absentee list, a sample of which is attached, together with instructions for its use.

If these instructions are carefully followed we should have at the employment department before 9 A.M. each day, a list of all your absent employees and will be in a position to determine which cases it will be policy for us to look up on that day, the results of all investigations being reported to you.

The plan suggested above is typical of that used in the four mills reported in this study.

LIMITS OF THIS STUDY

The facts in the study are based upon the experience of four textile plants. All firms use trained nurses to visit employees in their homes, after the first day of absence, unless permission by the foreman has been given for a definite period of non-attendance. After the first visit, calls are made by the nurse at intervals, dependent upon the reason for non-reporting. When employees are ill they may have the services of plant physicians or of their own physician according to their preference.

The plants differ in size and somewhat in variety of occupations. Firms A and B are old concerns employing respectively about twelve hundred and eight hundred employees. Firm C is a small plant with fewer types of processes. Firm D is a new plant started in 1922. It was thus building

up an organization during the period of reporting. All plants employ both men and women, in many cases hiring all members of the family, to which practice is due in part the attendance problem. Married women are absent for household duties as well as for cases of sickness in the family. Illness or death frequently means the non-attendance at work of two or three members of the home. The industries are particularly interesting since they give an opportunity to compare the attendance of men and women employed, in many cases on similar occupations at identical piece rates.

Plants A and B have had facilities for noon luncheon, rest rooms and athletic activities during the whole period of the study. More recently C has been equipped with a cafeteria and rest room. The plants are, in this respect, exceptionally well equipped with service facilities.

In the data used in connection with

this study, tardiness will not be considered, the whole emphasis of the study being upon longer absences. Absenteeism is used to include all cases of temporary separation from work when the plant is in operation. Cases where the worker reports late are, therefore, regarded as full time. Employees reporting at noon are reported absent. Whenever the whole plant was closed for a day or more the fact is indicated, though employees are not counted as absent. This is not wholly consistent since "no work" where it refers to a few workers is classified as "Reasons due to production." Occasionally a worker leaves without notice. In such cases where the reason for lost time is not known and a place is being held for the employee, he is regarded as absent until the nurse reports "will not return," when the name appears on the turnover record instead of on the absence report.

I—CLASSIFICATION OF REASONS FOR ABSENCE

There is no list of reasons for absence generally agreed upon. Many of the summary classifications now in use show the persistence of war influences. Nor is it easy to classify absences into a few reasons that are under all circumstances exclusive of others. From one point of view, illness due to hot weather may be regarded as "physical reasons," from another, "weather conditions." Besides, causes for absence are not only closely interwoven but are frequently dependent upon each other even in the mind of the worker.

In this report it has not been assumed that any particular reasons for absence were inherent in the plant or local situation. Specific reasons have been reported in detail while a summarized grouping has been undertaken only to bring out some of the most important causes.

REPORTING OF ABSENCE

The first step in preventing irregular attendance is the recording and analysis of adequate information concerning causes of absence. Students of this subject have said:

The record system in itself alone will prove to be an effective method of reducing

tardiness and absences. It will yield weekly reports that should prove effective by stimulating departmental rivalry in the reduction of absences and tardiness. The weekly reports will also reveal the weak spots in the organization and will show those departments that have the highest absent and tardy rates.

In collecting information the Department has proceeded on the same basis as was used in turnover reporting, so as to have reasons submitted in complete detail. Since no list of reasons was found comprehensive enough for employment managers to be certain of the choice of major reasons, the causes given in detail by plants are classified into eight main groups which, for the time being, must be regarded as tentative.

The following sample shows the form used by plants and the kind of items included in the daily absence report to the Department.

The classification and code used for tabulation is given here in full, in order that the specific reasons may be added to by the experiences of others. Continued use may show that some items recur too infrequently to warrant separate listing. At the present time, there is not enough data concerning

DAILY ABSENCE REPORT

DATE _____

B NAME	No.	SEX	DEPARTMENT	OCCUPATION	REASON FOR ABSENCES	NO. DAYS ABSENT	NO. OF VISITS
B. McDuff. . .	4211	M	Mech.	Electrician	Illness at home	3½	1
E. Shearer. . .	1172	F	Winding	Silk winder	Trouble at home	2	1
E. Wells. . . .	246	F	Winding	Cotton winder	Child in accident	5½	2
N. Roberts . .	2209	M	Cleaner	Helper	Sunburn—permission	2	1
M. Murphy. . .	2478	F	Cleaning	Cleaner	Ill—(Dr. H.)	21	6 (V D)
F. Boyd. . . .	3249	M	N. W.	Gasser	No one home	1	1
M. Brady. . .	3467	F	Coning	Coner	Moving	3	1
K. Jones. . . .	3542	F	Weaving	Weaver	Ill	4	2

the frequency of the different causes to warrant anyone in selecting the outstanding items given under specific reasons.

The following shows the grouping of major and minor causes for absence:

CLASSIFICATIONS OF REASONS FOR ABSENCE

<i>Reason</i>	<i>Code Number</i>
1. REASONS CONNECTED WITH PRODUCTION	100
<i>Specific Reasons</i>	
No work.....	101
Lack of material.....	102
Breakdown in equipment.....	103
Plant operating on part time.....	104
Work held up by previous operation.....	105
Sufficient pay from overtime.....	106
Suspended.....	107
Did not know there was work....	108
Unadjusted grievance.....	109
Will not return.....	110
2 REASONS CONNECTED WITH FAMILY AFFAIRS	200
<i>Specific Reasons</i>	
Illness in family.....	201
Death in family.....	202
Funeral.....	203
Wedding.....	204
Household cares.....	205
Moving.....	206
Family business.....	207
Visits of relatives or return of family (away) or entertaining company.....	208
3. REASONS CONNECTED WITH PERSONAL AFFAIRS	300
<i>Specific Reasons</i>	
.....	301
.....	302
Arrested or in jail.....	303
To be married.....	304
Continuation school.....	305
Shopping.....	306
Personal business.....	307
Out of town.....	308
Excursion.....	309
Alcohol.....	310
Tired from party or stiff from playing ball.....	311
Sunburned from vacation.....	312
Overslept.....	313
Missed car.....	314
Did not want to work, or taking a holiday, or playing "truant"...	315
4. REASONS CONNECTED WITH COMMUNITY AFFAIRS	400
<i>Specific Reasons</i>	
.....	401
.....	402
.....	403
Election.....	404
Jury, witness or militia duty.....	405
.....	406
Paying income tax.....	407
.....	408
Church, lodge and foreign celebrations, legal holidays.....	409
Transportation difficulties due to strike, etc.....	410
Transportation difficulties not otherwise specified.....	411
5. PHYSICAL REASONS	500
<i>Specific Reasons</i>	
Illness (all cases due to heat are to be specified).....	501
Illness due to heat.....	502
Tired from night or Sunday work.....	503
Accidents.....	504
General care of health (dentist, oculist, time taken for rest).....	505
6. REASONS CONNECTED WITH CLIMATE AND WEATHER	600
<i>Specific Reasons</i>	
Storm.....	601
No shoes or rain clothes.....	602
Too hot to work.....	603
Transportation difficulties due to weather.....	610
7. MISCELLANEOUS REASONS	700
<i>Specific Reasons</i>	
Leave of absence (not otherwise specified).....	701
Excused (not otherwise specified) ..	702
Not excused.....	703
.....	704
.....	705
Vacation (not otherwise specified)..	709
8. REPORT LACKING	800

It will be seen that the reasons for absences are grouped into eight main divisions:

- (1) Reasons connected with Production.
- (2) Reasons connected with Family affairs.
- (3) Reasons connected with Personal affairs.
- (4) Reasons connected with Community affairs.

- (5) Physical reasons.
- (6) Reasons connected with Climate and Weather.
- (7) Miscellaneous reasons.
- (8) Report lacking.

Under production, fall specific reasons which should be analyzed whenever the group reporting is large, such as "no work," "unadjusted grievances," and others reported as breakdown in equipment, lack of material, part-time work and suspensions for infringement of rules.

The reasons connected with outside affairs are large and important ones, and are divided into three Major Reasons, i.e., Family Affairs, Community Affairs, and Personal Affairs. Under the first of these, illness in family, death in family and household cares make the most important causes—reasons which are especially important where women are employed. Quarantine, classed under illness in family, occurs quite frequently, often keeping three or four members of a family away from work.

Community reasons are mainly civic duties, with the exception of the important item under transportation. Personal reasons such as "overslept," "missed car," "shopping," and "alcohol" occur frequently. The innocent-looking item "stiff from playing ball"

often becomes black eye, broken nose, etc., when reported on the daily sheet.

"Physical reasons" are by far the most important cause of lost time. This heading includes items due to ill-health, fatigue, accidents, etc.

Reasons connected with the weather may be storms which delay cars, rainy weather for which workers are unsupplied with suitable protective clothing, etc. In some cases women stay out on the first fine day in the week to do family washing, a cause due to fine weather, but which is put under "household cares."

Miscellaneous reasons include many which in time can be more precisely reported. "Permission" and "leave of absence" given by the foreman may on the whole be assumed as due to adequate causes. It would improve the record if the cause as well as the "permission" could be recorded. Vacation is grouped here when it refers to a period of a week or more.

Some of the difficulties of nurses in making home visits are reflected in the unknown items, "could not get in," "no one home when called," "could not make understand," "wrong address," "family moved," etc.

The importance of these major reasons will be discussed in the chapter dealing with causes of absence.

II—EXTENT OF ABSENTEEISM

The importance of lost time can be gauged somewhat by the size of this item in comparison with the days which the employees could have worked. Times when the plant was wholly closed may be considered as part of an unemployment problem. At the outset then, the questions are: what is the extent, and what are the causes of broken employment?

The amount of absenteeism has been computed by comparing lost time with the number of employees on the payroll multiplied by the number of days on which the plant was in operation. For the year 1920 in firm A it will be seen (see Chart I, p. 199) that the percentage of man-days lost ranges from 3.2 per cent in October to 7.2 per cent in March and April. Again in 1921

firm A has its lowest rate in October, but has its high rate in February and July—ranging from 3.2 per cent in October to 6.3 per cent in February. Referring to Chart I, it will be seen that two high peaks of absenteeism occur in each year—one in the winter, the other in the summer vacation period. Particular attention is called to the parallelism in movement between the monthly curves of firm A and firm B. While firm B tends to have a higher rate of man-days lost, there is only one month, October, 1921, when the two curves move in opposite directions. For 1922, both curves tend to be somewhat lower with less marked monthly fluctuations. From the table it may be noted that the low month of 1922 was 3.7 per cent in June. Judging from the previous year it is likely that a rate lower than that may be reached in October. The low point of B was 3.5 in April.

Considering plant A, the one with the lowest absence, one finds that the percentage of absence tends to be lower each year from 1920 to 1922. The high points recur in the same months. It would be safe to conclude from these figures that attendance is affected by cold and warm weather though in wholly different degrees. Cold weather increases the time lost by women more than that by men.

Firm C, being a small plant, has its absence-percentage rate considerably affected by the loss of time of a few persons; consequently, the wide upward and downward swings of the absence curve for this plant may be explained by the low base (the dotted curve on Chart I). While the range of movement is, therefore, greater, the direction of movement is identical with that for the two firms already discussed.

In 1922, the months of high absence correspond with the two previous

years. Again the high months are found in February, March and July. As in 1921, plant A tends to show a lower absence rate, while the small plants, C and D, fluctuate widely. The curves in Chart I, as well as the monthly figures printed in the table on that chart, show the consistent reappearance of two high peaks of absence each year.

QUARTERLY COMPARISON OF ABSENCE

Table 1 shows a quarterly grouping of time lost. In all cases the percentage of lost time is higher in winter. The lowest rates appear regularly in the October–December quarter. It will be seen that plants A and B must count upon absences in each quarter ranging from 4 to 6 per cent of the possible working days. In firm C, the single difference in the resemblances already noted for A and B is in the October–December quarter—in the case of this firm unmistakably higher than the April–June quarter.

Of course, any variations in the way in which the factory is running will affect the percentage of variation from month to month. The proportion of men and women employed causes some variation in the season in which absence is highest.

Considered in the aggregate, the 5.5 per cent of average yearly absence in 1920, at plant A, meant 5,287 days lost by men and 8,105 days lost by women—a total of 13,392 days lost by all employees during the year. From the point of view of the individual, this would mean slightly less than a day and a quarter of absence each month for every employee in the plant. For the individual this would be negligible if it actually represented absences distributed in this way. As a matter of fact it does not represent distributed absence but rather continuous attend-

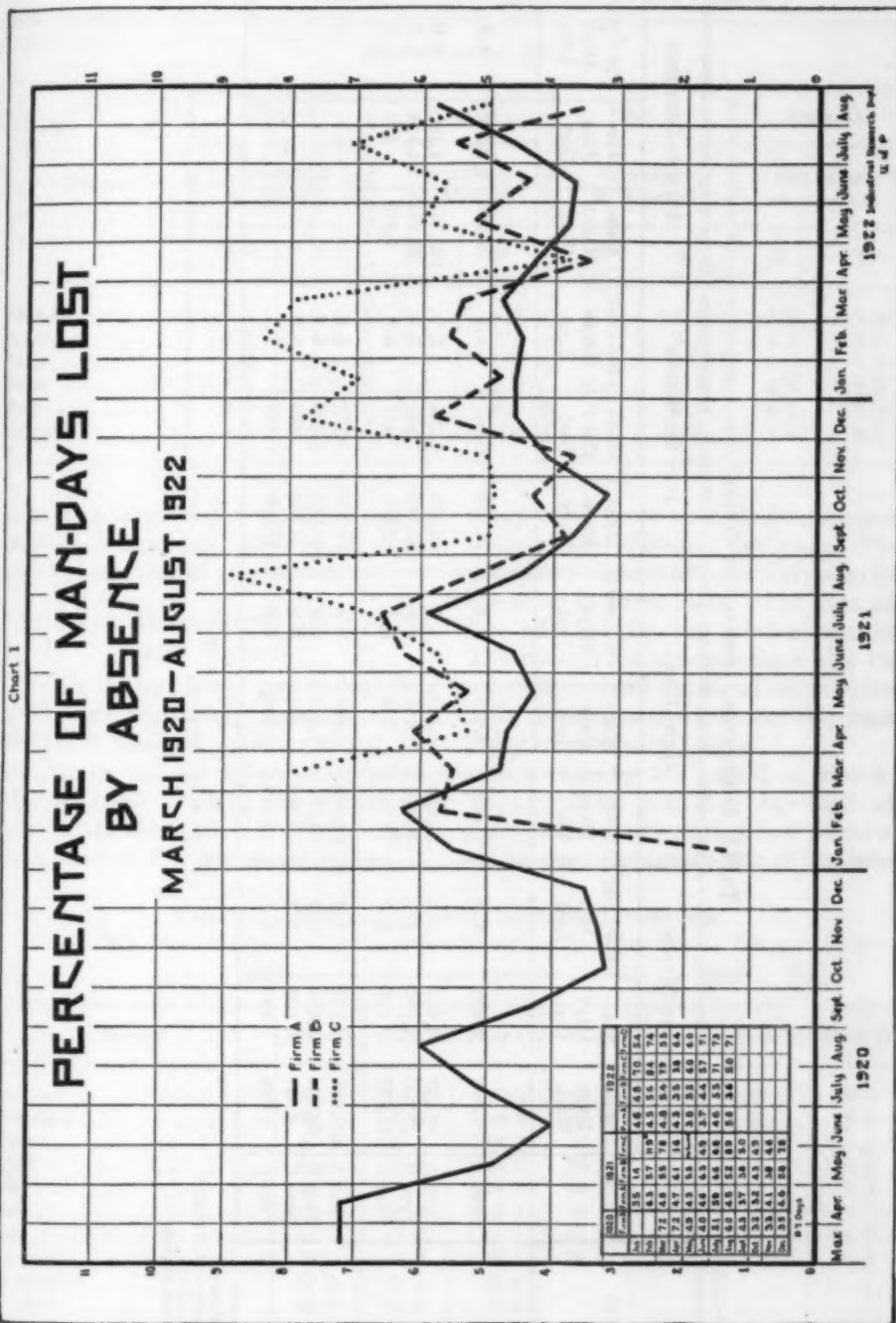


TABLE 1—QUARTERLY ABSENCE BY PLANTS

YEAR	FIRM	JANUARY-MARCH			APRIL-JUNE			JULY-SEPTEMBER			OCTOBER-DECEMBER		
		Man-Days Work	Man-Days Lost	Per Cent Days Lost	Man-Days Work	Man-Days Lost	Per Cent Days Lost	Man-Days Work	Man-Days Lost	Per Cent Days Lost	Man-Days Work	Man-Days Lost	Per Cent Days Lost
1920	Firm A	*31,968	2,290	7.2	88,835	4,815	5.4	76,274	3,947	5.2	69,833	2,340	3.3
1921	Firm A	83,663	4,615	5.5	91,330	4,120	4.5	86,670	4,094	4.7	105,754	4,198	4.0
	Firm B	25,700	1,076	4.2	26,159	1,541	5.9	25,708	1,332	5.2	32,082	1,494	4.7
	Firm C	†1,797	155	8.6	‡3,132	178	5.7	7,050	481	6.8	7,970	472	5.9
1922	Firm A	101,989	4,734	4.6	98,899	3,864	3.9	\$61,166	3,159	5.2	.....	.....	...
	Firm B	32,024	1,686	5.3	34,556	1,517	4.4	\$22,024	1,006	4.6	.....	.....	...
	Firm C	6,934	536	7.7	8,276	451	5.4	\$5,408	340	6.3	.....	.....	...
	Firm D	6,929	426	6.1	8,534	559	6.6	\$5,920	422	7.1	.....	.....	...

* March only.

† February and March.

‡ May omitted.

§ July and August.

TABLE 2—COMPARISON OF ATTENDANCE OF MEN AND WOMEN

MARCH-AUGUST, 1922								
MONTH	FIRM A		FIRM B		FIRM C		FIRM D	
	Percentage of Absence		Percentage of Absence		Percentage of Absence		Percentage of Absence	
	M	F	M	F	M	F	M	F
March.....	3.5	6.4	3.7	6.7	7.7	8.0	1.0	7.2
April.....	3.8	4.9	3.4	3.5	3.1	4.3	4.9	7.0
May.....	2.5	5.0	4.2	5.8	6.1	6.0	2.9	7.0
June.....	2.4	4.9	2.7	5.6	2.5	7.1	4.6	7.9
July.....	2.6	6.5	3.8	6.5	2.4	8.0	5.1	8.0
August.....	4.1	7.5	2.8	4.0	4.8	5.1	3.8	8.2

ance for a large part of the force and an enormous aggregate absence for a restricted number of employees.

EXTENT OF ABSENTEEISM AMONG MEN AND WOMEN

While the number of men and women absent are separately recorded at all plants, it was not possible to get the number on the payroll separate before March, 1922. Taking the period for which data are available, it will be seen that absence for women is higher, in

many cases more than double the percentage of absence for men. The months of highest absence vary also for the sexes in these mills. The men are less affected by the winter months. The reasons for absence show also the many household duties which interfere with the occupations of women, especially women with homes.

Summarizing the period of March-August, 1922, one may say that all plants must count upon 6 to 8 per cent of lost days by women out of the total

TABLE 3—ANNUAL TURNOVER PERCENTAGE BY MONTHS

MONTH	1921			1922			
	FIRM A	FIRM B	FIRM C	FIRM A	FIRM B	FIRM C	FIRM D
January.....	48.0	12.9	0.0	46.4	25.7	22.6	30.4
February.....	87.0	109.1	113.2	48.8	22.5	32.1	77.7
March.....	99.7	192.1	309.6	37.8	34.4	10.5	106.2
April.....	57.6	63.9	144.0	89.1	49.3	77.7	158.4
May.....	47.9	60.9	161.5	38.2	106.4	105.6	68.3
June.....	63.3	69.3	113.1	45.7	67.5	73.3	77.1
July.....	45.7	50.6	58.3	34.2	51.9	26.4	56.7
August.....	36.2	80.0	22.0	42.3	53.4	26.9	48.6
September.....	57.5	81.4	21.4	....	....	....	....
October.....	42.7	14.4	44.4	....	....	....	....
November.....	59.1	40.2	33.3	....	....	....	....
December.....	38.0	40.8	45.7	....	....	....	....

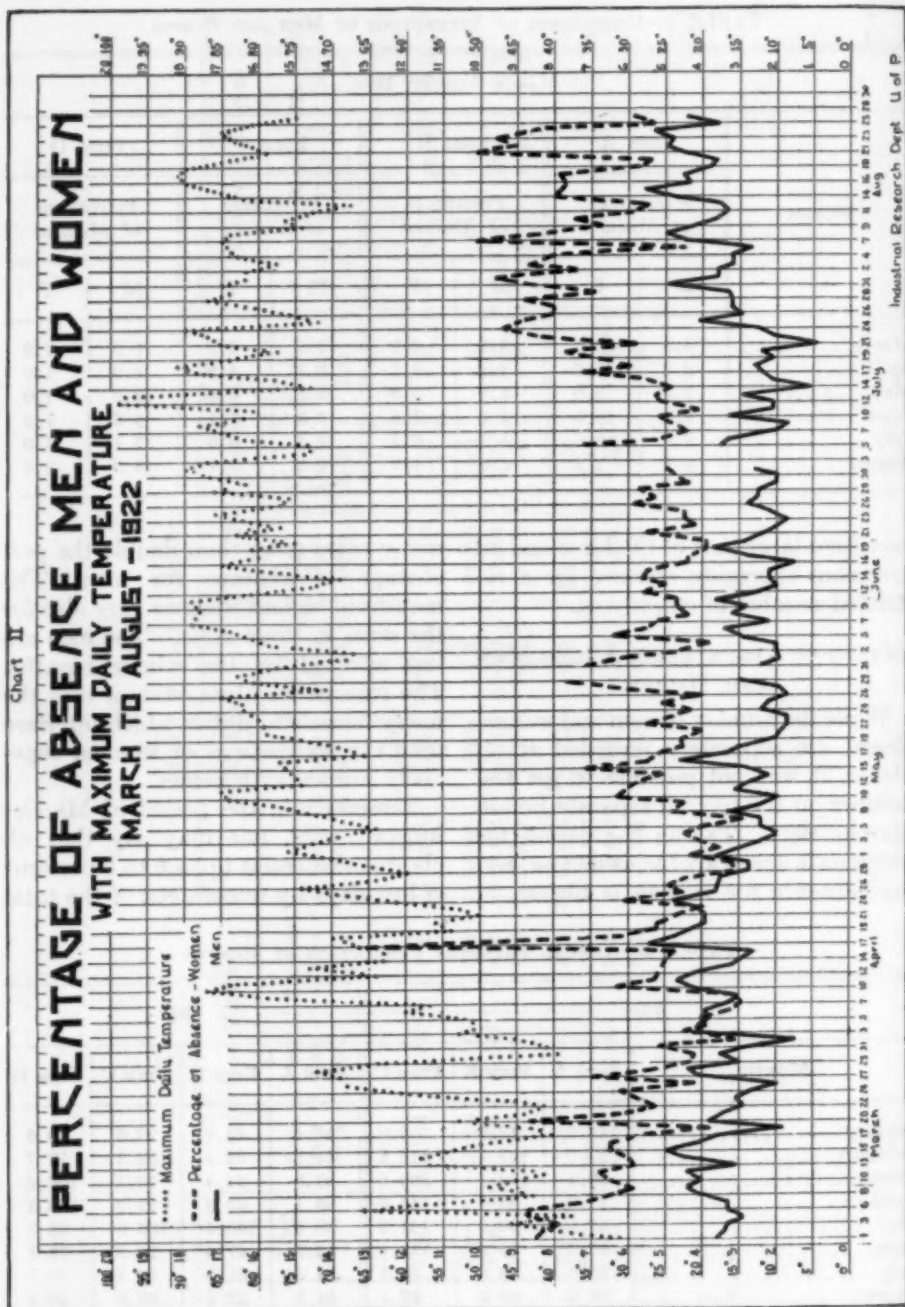


TABLE 4—MONTHLY TURNOVER PERCENTAGES ON AN ANNUAL BASIS BY SEX

MARCH–AUGUST, 1922

MONTH	FIRM A			FIRM B			FIRM C			FIRM D		
	Total Per cent	Male Per cent	Female Per cent	Total Per cent	Male Per cent	Female Per cent	Total Per cent	Male Per cent	Female Per cent	Total Per cent	Male Per cent	Female Per cent
March.....	37.8	31.1	46.1	34.4	12.7	52.2	10.5	0.0	16.7	106.2	0.0	148.1
April.....	89.1	148.9	25.2	49.3	57.4	42.5	77.7	92.3	69.6	158.4	150.0	162.2
May.....	38.2	32.1	44.2	106.4	44.4	151.1	105.6	60.0	127.1	68.3	0.0	90.3
June.....	45.7	24.1	67.5	67.5	31.7	90.7	73.3	30.8	91.3	77.1	97.5	88.9
July.....	34.2	25.6	43.1	51.9	12.6	77.5	26.4	0.0	38.7	56.7	68.6	53.1
August.....	42.3	34.5	50.2	53.4	19.8	74.5	27.0	28.6	26.1	48.6	33.3	53.6

possible working time. For men an allowance of 3 to 4 per cent is adequate. Since men and women are employed on identical operations at similar piece rates, the differences in attendance are important. Later comparison for this six-months period will make possible comparisons by occupations.

Turning to Chart II, p. 202, the lower solid line represents the percentage of man-days lost by men. Throughout the length of the solid black curve, there is a recurring peak on Mondays of each week with a pronounced downward movement in the succeeding days of the week. About the middle of the week there is a slight elevation, sometimes reaching to a distinct fluctuation, more often appearing only as a suggestion of rise in the general downward curve for the week. The highest Monday peak of the year occurs on April 17, Easter Monday. Toward the end of April, absence tends downward until about the middle of July, when percentages increase. The women's absence curve does not differ from the men's so much in general contour as in amount of absences. The curves are far apart during March and the early part of April. At the end of April and the early part of May the drop in the women's absence curve tends to bring the two together. The Monday peaks in the women's curve are very marked. In June the two curves tend to move farther apart, the curve for women rising much more rapidly than that for men.

RELATION OF ABSENTEEISM TO LABOR TURNOVER

Some interest attaches to the relation of absenteeism to labor turnover in these plants. The solid black line on Chart III represents monthly turnover for firm A. The curve increases until March, and from then tends downward

until the end of the year with slight upward fluctuations in June, September and November. In 1922, there is a high peak in April, while the other months run fairly uniformly.

The turnover curve for B varies more than that for A, though its markedly high peaks occur at the same time. For firm C the dotted curve tends to follow the general movement of firm A, except for the first six months, when this plant was building up a new organization. During that period the turnover was above 110 per cent for five months and reached 309 per cent in the month of March. D is in an unstable condition similar to that of C in the first half of the previous year. Its highest turnover was 158 per cent in April. Except in March, 1922, comparison of Chart III, p. 205, with the chart for absence, p. 199, shows that high turnover months are not high absence months.

In 1922, the turnover peaks are highest in April and May, months in which the absence rate is lowest. In one respect there is correspondence, firm A, the plant of lowest turnover, is also the plant of lowest absence. If it is true, as is frequently stated, that absence is "incipient turnover" then the absentee visiting at these plants must have already reduced the

amount of quitting, initiating in absence.

Even when one considers the turnover for men and women it cannot be said that the high turnover months are the high absentee months. For plant A the highest turnover for women occurs in June, for the three other plants in May, whereas the absences for women are highest in March and July.

EXTENT OF ABSENTEEISM BY DAYS OF WEEK

The average percentage of employees absent varies somewhat from day to day. To take care of the Monday absences the firm would have to carry a larger reserve than is needed on any other day of the week.

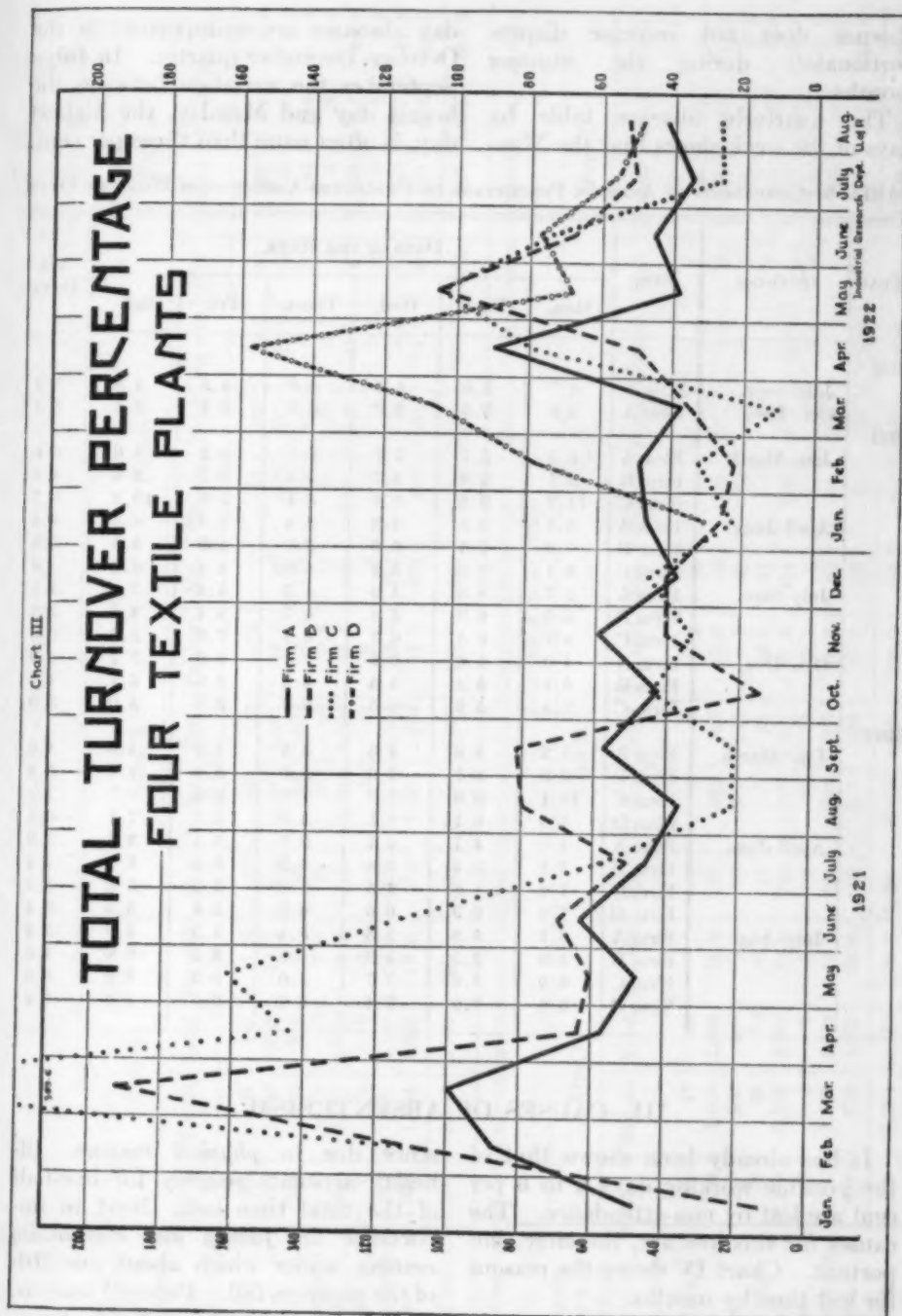
In the year 1921, firms A, B and C lost by absence a yearly rate of 4.7, 5.0 and 6.6 per cent of the potential working days.

Table 5 shows the absence by days of the week for each plant.

As Monday is highest in per cent of time lost, so Friday, pay day, is lowest. The low rate of Saturday cannot be compared with other days owing to the fact that plants are frequently closed on those days. It is interesting to note that the Saturday

TABLE 5—DAILY AVERAGE PERCENTAGE OF EMPLOYEES ABSENT

DAY OF WEEK	1920	1921			1922			
	FIRM A	FIRM A	FIRM B	FIRM C	FIRM A	FIRM B	FIRM C	FIRM D
Monday.....	5.7	5.4	6.3	8.6	5.3	5.7	8.1	8.1
Tuesday.....	5.2	5.0	5.6	7.5	4.7	5.7	5.8	6.6
Wednesday.....	5.0	4.7	5.1	6.6	4.6	4.7	6.1	6.6
Thursday.....	4.5	4.5	4.4	5.6	4.4	4.2	5.8	5.9
Friday.....	4.4	4.4	4.2	5.8	4.0	4.0	6.7	5.2
Saturday.....	4.7	4.1	4.3	5.6	3.9	3.7	6.5	6.4
All days.....	4.9	4.7	5.0	6.6	4.8	4.8	6.5	6.4



absence does not increase disproportionately during the summer months.

The quarterly absence table by days of the week shows that the Mon-

day absences are unimportant in the October-December quarter. In July-September the variation between the lowest day and Monday, the highest day, is often more than three per cent.

TABLE 6—COMPARISON OF AVERAGE PERCENTAGE OF EMPLOYEES ABSENT FROM WORK BY DAYS

YEAR	QUARTER	FIRM	DAYS OF THE WEEK						ALL DAYS
			Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	
1920	July-Sept.	Firm A	5.7	5.8	5.4	4.6	4.8	4.8	5.2
	Oct.-Dec.	Firm A	3.6	3.3	3.6	3.3	3.1	3.1	3.3
1921	Jan.-March	Firm A	6.8	5.7	5.7	5.5	5.2	4.6	5.6
		Firm B	6.1	4.9	4.7	3.8	3.7	2.2	4.3
		Firm C	11.7	9.2	7.6	8.1	5.8	13.2	8.7
	April-June	Firm A	5.1	4.3	4.3	4.4	4.3	4.4	4.4
		Firm B	7.5	6.4	5.9	5.1	4.9	5.3	5.8
		Firm C	6.1	7.0	5.2	5.0	4.4	6.2	5.6
	July-Sept.	Firm A	5.7	5.3	4.9	4.5	4.2	3.6	4.7
		Firm B	6.3	6.0	5.4	4.7	4.4	4.6	5.3
		Firm C	8.7	8.5	6.7	4.4	7.0	5.1	6.8
	Oct.-Dec.	Firm A	4.0	4.6	3.9	3.7	3.9	3.7	4.0
		Firm B	5.1	5.2	4.4	4.2	3.8	5.1	4.7
		Firm C	7.4	5.9	6.5	6.0	5.0	5.0	5.9
1922	Jan.-March	Firm A	5.3	4.8	4.6	4.5	4.3	4.3	4.6
		Firm B	6.3	6.1	5.6	5.0	5.1	4.2	5.4
		Firm C	10.1	6.8	7.3	7.7	6.8	7.7	7.7
		Firm D	7.8	6.1	6.1	5.0	4.7	7.1	6.1
	April-June	Firm A	4.8	4.1	4.1	3.7	3.4	3.3	3.9
		Firm B	5.1	5.4	4.6	4.3	3.6	3.3	4.4
		Firm C	7.2	4.8	5.3	4.4	4.7	5.5	5.4
		Firm D	7.9	6.9	6.6	6.2	5.4	5.3	6.4
	July-Aug.	Firm A	6.1	5.8	5.3	5.4	4.3	4.3	5.2
		Firm B	5.9	5.3	4.8	4.9	2.9	3.8	4.6
		Firm C	6.9	5.6	5.7	5.0	9.9	5.9	6.3
		Firm D	8.8	7.2	7.4	6.7	6.0	7.0	7.2

III—CAUSES OF ABSENTEEISM

It has already been shown that of the possible working days 5 to 6 per cent are lost by non-attendance. The causes for this loss are, therefore, important. Chart IV shows the reasons for lost time by months.

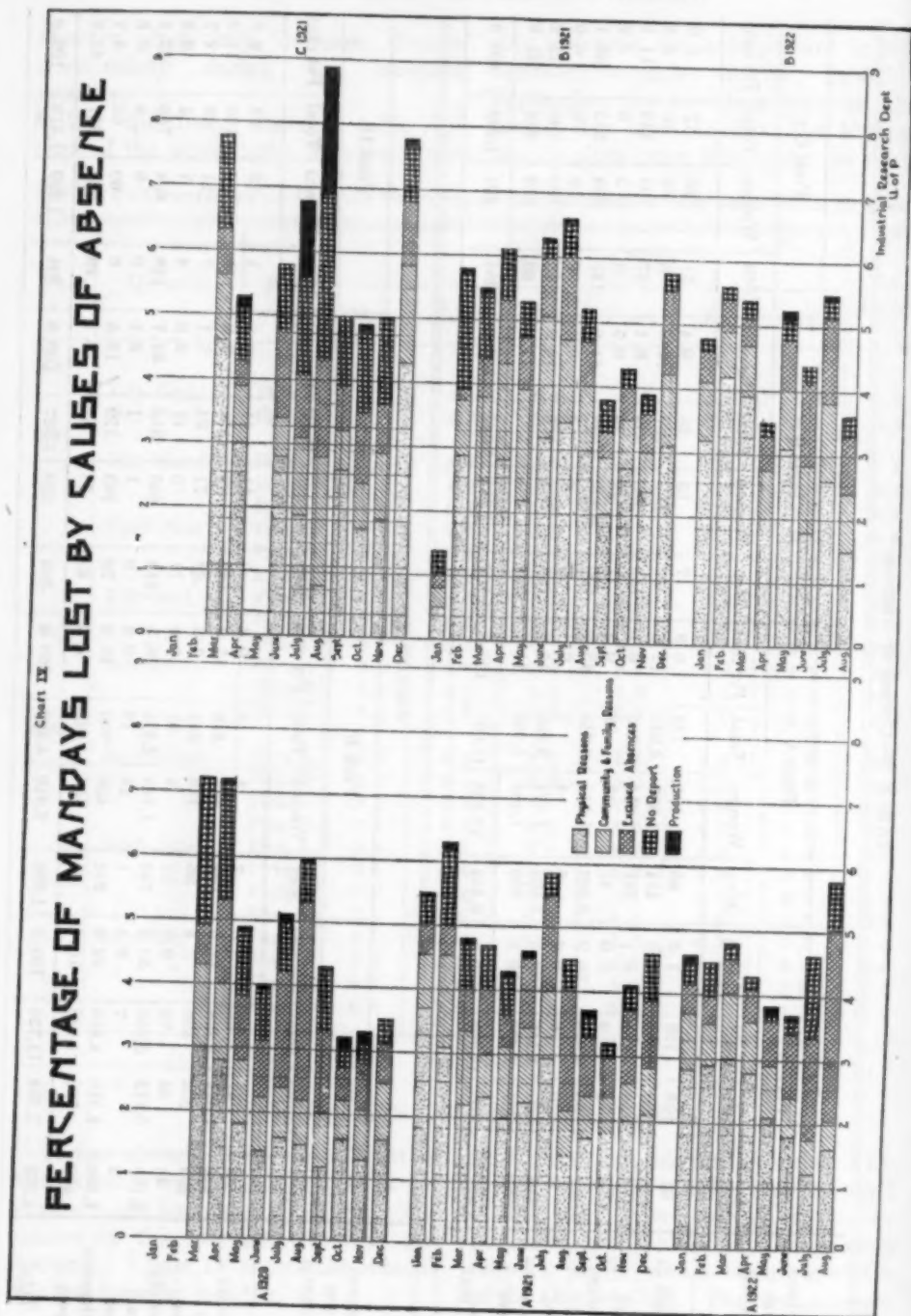
The first division of the cross-hatched bars represents the percentage of ab-

sence due to *physical reasons*. Ill-health accounts roughly for one-half of the total time lost. Next in importance are *family and community reasons*, under which about one-fifth of the absences fall. Personal reasons, including overslept, out of town, shopping and excursions, cover less than one-tenth of the total absence.

TABLE 7—CAUSES OF ABSENCE

REASON FOR ABSENCE	1920										1921									
	FIRM A					FIRM B					FIRM C					FIRM D				
	Men	Women	Total	Per cent		Men	Women	Total	Per cent		Men	Women	Total	Per cent		Men	Women	Total	Per cent	
Production	65	103	168	1.3		46	106	152	0.9		7	13	20	0.4		51	26	77	6.0	
Family	353	1,300	1,653	12.3		454	1,597	2,051	12.0		98	599	697	12.8		8	62	70	5.5	
Personal	359	456	815	6.1		421	614	1,035	6.1		159	280	439	8.1		37	106	143	11.1	
Community	0	0	0	0.0		41	47	88	0.5		11	28	39	0.7		0	3	3	0.2	
Physical	2,053	2,895	4,948	36.9		3,203	5,140	8,343	48.9		600	2,228	2,828	51.9		147	368	515	40.1	
Weather	0	0	0	0.0		3	4	7	0.1		0	4	4	0.1		0	0	0	0.0	
Miscellaneous . . .	1,379	1,767	3,146	23.5		1,495	1,874	3,369	19.8		183	596	779	14.3		75	120	195	15.2	
No report	1,078	1,584	2,662	19.9		789	1,203	1,992	11.7		134	503	637	11.7		66	216	282	21.9	
Total	5,287	8,105	13,392	100.0		6,452	10,585	17,037	100.0		1,192	4,251	5,443	100.0		384	901	1,285	100.0	

REASON FOR ABSENCE	JANUARY—AUGUST, 1922																			
	FIRM A					FIRM B					FIRM C					FIRM D				
	Men	Women	Total	Per cent		Men	Women	Total	Per cent		Men	Women	Total	Per cent		Men	Women	Total	Per cent	
Production	20	47	67	0.6		7	1	8	0.2		0	11	11	0.8		1	28	29	2.0	
Family	354	1,044	1,398	11.9		122	424	546	13.0		42	89	131	9.9		10	150	160	11.3	
Personal	200	206	406	3.4		86	139	225	5.3		23	71	94	7.1		7	31	38	2.7	
Community	46	33	79	0.7		17	4	21	0.5		11	0	11	0.8		4	1	5	0.3	
Physical	2,178	3,775	5,953	50.6		746	1,728	2,474	58.3		214	605	819	61.7		148	602	750	53.1	
Weather	2	5	7	0.1		1	12	13	0.3		0	1	1	0.1		0	8	8	0.6	
Miscellaneous . . .	1,100	1,518	2,618	22.3		242	458	700	16.6		76	103	179	13.5		6	60	66	4.7	
No report	472	756	1,228	10.4		69	153	222	5.3		23	58	81	6.1		23	329	357	25.3	
Total	4,372	7,384	11,756	100.0		1,290	2,919	4,209	100.0		389	938	1,327	100.0		204	1,209	1,413	100.0	



It is unfortunate that it is impossible to classify the excused absences which are here grouped under miscellaneous. Could these be distributed they would increase the items under "family," "personal" and "community" reasons since all excused absences are cases of permission given by foremen, and are mainly short absences of one day or less. Under permission fall also cases of extended absence where employees need a long vacation for general care of health. The group entitled production could be increased only by additions for times when the plant is closed down or works part of the day. The "no report" group comprises mainly short absences, from which the employee reports back to the plant before the nurses have had time to make a home call.

The black areas on the chart show absence due to delays in production on days when the mills were in operation. The knowledge of slackness in the work is reflected in the fact that in months when this area is large, absences with "permission" and "no report," tend to increase as shown by

the checked areas of the bars. Family reasons are fairly uniform from month to month with a tendency to increase in the school vacation months. During 1921, physical reasons for plant A varied from 1.4 per cent of the potential working days in August to 3.7 per cent in January; at plant B from 2.2 in September to 3.4 in July; at plant C from .8 per cent in August to 6.2 in February. For the first eight months of 1922, the same group at firm A ranged from 1.2 in July to 3.0 in March; for firm B from 1.8 in June to 3.9 in March; for firm C from 1.8 in April to 6.3 in March; for firm D, 2.0 in June to 4.5 in February.

The relative importance of physical reasons appears in the following grouping of major causes: in general, family reasons alone tend to be about 12 per cent of the absences. If the family, personal and community items are added, the percentage deviates, in the main, a few points from 20 per cent. By contrast with this group causes reported due to ill-health rarely fall below 50 per cent of the total absence. Despite the fact that one would ex-

TABLE 8—NUMBER OF ABSENCES DURING YEAR 1921

REASONS	FIRM A			FIRM B			FIRM C		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
<i>All physical reasons....</i>	3,203	5,140	8,343	600	2,228	2,828	147	368	515
Illness due to heat....	54	28	82	0	8	8	1	1	2
General care of health (dentist, oculist, rest, etc.).....	52	71	113	21	81	102	8	19	27
Accidents.....	231	200	401	37	114	201	6	3	9
<i>All family reasons....</i>	454	1,597	2,051	98	599	697	8	62	70
Sickness in family....	196	1,221	1,417	61	392	453	2	38	40
Death in family.....	125	150	275	18	47	65	0	12	12
Moving.....	57	59	116	7	28	35	0	3	3
<i>All personal reasons....</i>	421	614	1,035	159	280	439	57	106	143
Out of town.....	169	249	418	34	95	129	6	25	31
Overslept.....	51	144	195	8	64	72	7	18	25

TABLE 9—CAUSES OF ABSENCE—QUARTERLY PERCENTAGES

YEAR	QUARTER	FIRM	CAUSES OF ABSENCE								Per cent of Man- days Lost
			Production	Family	Personal	Community	Health	Weather	Miscellaneous	Unknown	
1920	March	*Firm A	0.0	1.0	0.3	0.0	3.0	0.0	0.6	2.3	7.2
	April-June	Firm A	0.06	0.61	0.37	0.0	2.05	0.0	1.06	1.25	5.4
	July-Sept.	Firm A	0.03	0.41	0.4	0.0	1.45	0.0	2.11	0.8	5.2
	Oct.-Dec.	Firm A	0.1	0.5	0.2	0.0	1.3	0.0	0.5	0.3	2.9
1921	Jan.-March	Firm A	0.1	0.91	0.4	0.05	3.3	0.01	0.63	0.9	6.3
		Firm B	0.04	0.5	0.3	0.1	2.0	0.003	0.32	1.03	4.2
		†Firm C	0.0	0.3	0.8	0.0	4.9	0.0	0.6	2.0	8.6
	April-June	Firm A	0.04	0.66	0.27	0.22	2.2	0.0	0.72	0.59	4.5
		Firm B	0.01	1.1	0.6	0.02	2.7	0.01	0.9	0.6	5.9
		‡Firm C	0.03	0.1	0.5	0.03	2.84	0.0	1.1	1.0	5.6
	July-Sept.	Firm A	0.02	0.5	0.33	0.01	2.1	0.0	1.44	0.4	4.8
		Firm B	0.02	0.5	0.51	0.04	2.8	0.0	0.8	0.5	5.2
		Firm C	1.02	0.3	0.9	0.0	1.81	0.0	1.05	1.72	6.8
	Oct.-Dec.	Firm A	0.02	0.4	0.22	0.02	1.9	0.0	0.94	0.4	4.0
		Firm B	0.01	0.5	0.24	0.02	2.7	0.0	0.82	0.31	4.6
		Firm C	0.05	0.46	0.63	0.02	2.63	0.0	0.95	1.16	5.9
1922	Jan.-March	Firm A	0.02	0.63	0.1	0.04	2.9	0.01	0.5	0.4	4.6
		Firm B	0.01	0.7	0.12	0.01	3.8	0.04	0.4	0.22	5.3
		Firm C	0.03	0.9	0.6	0.1	5.3	0.02	0.35	0.4	7.7
	April-June	Firm D	0.0	0.9	0.2	0.0	3.5	0.1	0.2	1.2	6.1
		Firm A	0.04	0.5	0.2	0.02	2.2	0.0	0.8	0.14	3.9
		Firm B	0.01	0.6	0.27	0.02	2.34	0.0	0.9	0.26	4.4
	July-Aug.	Firm C	0.03	0.6	0.4	0.0	3.0	0.0	1.0	0.37	5.4
		Firm D	0.2	1.0	0.2	0.1	3.1	0.0	0.2	1.7	6.5
		Firm A	0.01	0.3	0.12	0.03	1.4	0.0	2.24	1.1	5.2
		Firm B	0.01	0.6	0.4	0.1	2.1	0.0	1.12	0.27	4.6
		Firm C	0.1	0.1	0.2	0.5	3.7	0.0	1.3	0.4	6.3
		Firm D	0.2	0.2	0.1	0.0	4.2	0.0	0.5	2.0	7.2

* March only.

† February and March.

‡ May omitted.

pect ill-health to be an excuse as well as a necessary cause for absence, it is striking that in the records of four plants for three different years there should be as little variation between the proportion of absences for this cause and that for other reasons. Where absences are checked and medical services provided, it can be assumed that the ratio of ill-health has been reduced to fairly near the minimum.

Minor classifications are given for these groups in 1921 to show the most outstanding sub-classifications. General care of health is low because of the facilities provided in the plants for care of teeth and eyes, attention which can be given within working hours.

Because the totals under some items are small, the figures have been grouped in quarterly and yearly tables instead of monthly.

In the quarterly grouping, plant A

shows absences in the January-March quarter of about 2 per cent higher each year than in other quarters. The same is true for plant C. The low absence found during the summer months is due to the practice at both plants of closing during the last week of August to reopen again after Labor Day, thus taking care of vacations, except in special cases for which arrangement is separately made. It is consequently only the cases of individually arranged vacations which appear on the absence report. Firm B set out to follow the same practice but was forced to keep part of the plant working during the vacation period in 1921. Despite this arrangement it has been pointed out already that the month of July tends to run higher in days lost than other summer months. Physical reasons account for the higher winter months.

TABLE 10—ABSENTEE PERCENTAGE BY OCCUPATIONS FOR MILL A

MARCH-AUGUST, 1922								
OCCUPATION	AVERAGE NO. ON PAYROLL		POTENTIAL MAN-DAYS		MAN-DAYS LOST		PERCENTAGE MAN-DAYS LOST	
	Men	Women	Men	Women	Men	Women	Men	Women
Beamer.....	58	28	8,758	4,228	128	104	1.46	2.45
Burler and Finisher..	28	38	4,228	5,738	36	65	0.85	1.13
Cleaner.....	6	15	906	2,265	5	103	0.55	4.54
Clerical Employees..	52	56	7,852	8,456	292	329	3.71	3.89
Coner.....	14	97	2,114	14,647	73	1,294	3.55	8.83
Dyer.....	28	2	4,228	302	101	11	2.38	3.64
Gasser.....	31	0	4,681	0	136	0	2.90	0.0
Inspector.....	0	5	0	755	0	42	0.0	5.56
Learner.....	6	36	906	5,436	0	27	0.0	4.96
Machinist.....	29	0	4,379	0	198	0	4.52	0.0
Quiller.....	23	39	3,473	5,889	88	268	2.53	4.55
Reeler.....	0	7	0	1,057	0	11	0.0	1.04
Splitter.....	27	2	4,077	302	167	36	4.07	11.92
Spooler.....	2	14	302	2,114	6	323	1.98	15.27
Weaver.....	173	161	26,123	24,311	1,185	1,960	4.53	8.09
Winder.....	7	62	1,057	9,362	48	488	4.54	5.21
All others.....	179	72	27,020	10,872	722	488	2.67	4.48

ABSENCE BY OCCUPATION

A survey of absence by occupation during the six months, March–August, 1922, shows that lost time is highest for some of the most important occupations. It will be seen that the women coners are losing more than two days a month per each woman employee. The percentage of absence among weavers is somewhat lower than among coners but is, none the less, above two days a month for each woman weaver, and about one day for each man weaver employed. The absence table, classified by occupations, is given on page 211.

Compared with coners and weavers the quillers have a relatively low absence. For the men the low percentage of absence among dyers was unexpected, especially by comparison with the attendance of machinists, though it must be borne in mind that both are small groups. The loss of time among beamers was very low for both men and women.

For firm B there is less difference in the absences by occupations; the

men weavers have an absence of 4.4 per cent, the women of 4.6. For men coners the absence is low, being about one half of one per cent; for women the rate is 6 per cent.

CAUSES OF ABSENCE FOR MEN AND WOMEN

The very considerable differences in the absence rate of men and women have already been noted. Contrasts appear also when causes of absence are considered separately. The men's absences, which run highest in the October–December quarter for firm A, have a high percentage under personal and family reasons, for the two months at the end of the year. The high absence rate of women accounts for the peak in January–March. Here the cause is found under physical reasons since all other reasons run higher in other quarters. December and the cold months of the early part of the year take a heavy toll for ill-health among women. This will be noted again in the section under climatic factors.

TABLE 11—FREQUENCY TABLE OF INDIVIDUAL ABSENCES

DAYS OF ABSENCE	MEN			WOMEN		
	No. of Absences Reported	Total No. of Days of Absences	Percentages of Total Absences	No. of Absences Reported	Total No. of Days of Absences	Percentages of Total Absences
1.....	1,009	1,000	30.3	1,498	1,498	28.4
2.....	216	432	13.0	287	574	10.9
3.....	97	291	8.7	139	417	7.9
4.....	78	312	9.4	106	424	8.1
5.....	44	220	6.6	72	360	6.8
6.....	33	198	5.9	46	276	5.3
7.....	9	63	1.9	18	126	2.4
8.....	8	64	1.9	12	96	1.8
9.....	10	90	2.7	10	90	1.7
10.....	7	70	2.1	13	130	2.5
11.....	10	110	3.3	13	143	2.7
12.....	6	72	2.2	12	144	2.7
13.....	4	52	1.6	8	104	2.0
14 and over	17	345	10.4	48	886	16.8
Total	1,548	3,328	100.0	2,282	5,208	100.0

Chart V

COMPARISON OF MEAN TEMPERATURE AND PERCENTAGE OF ABSENCE

JAN. 1921 - AUG. 1922

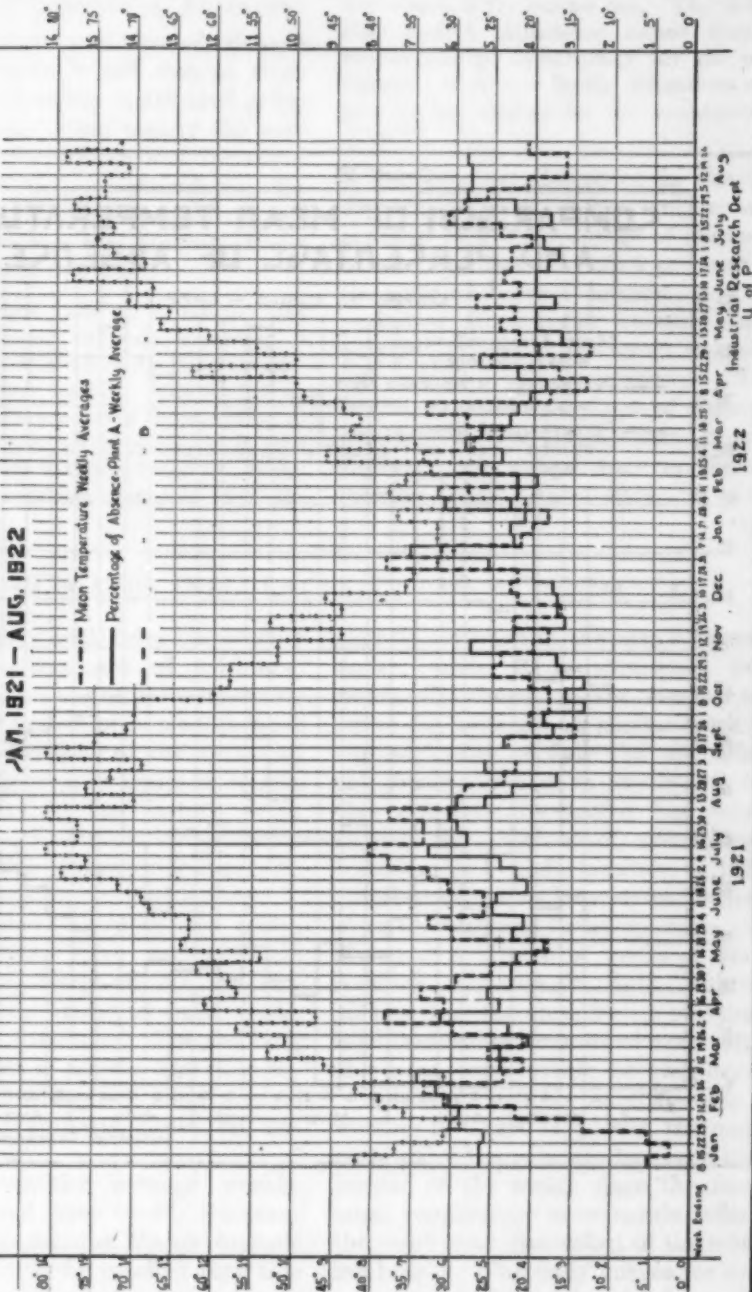
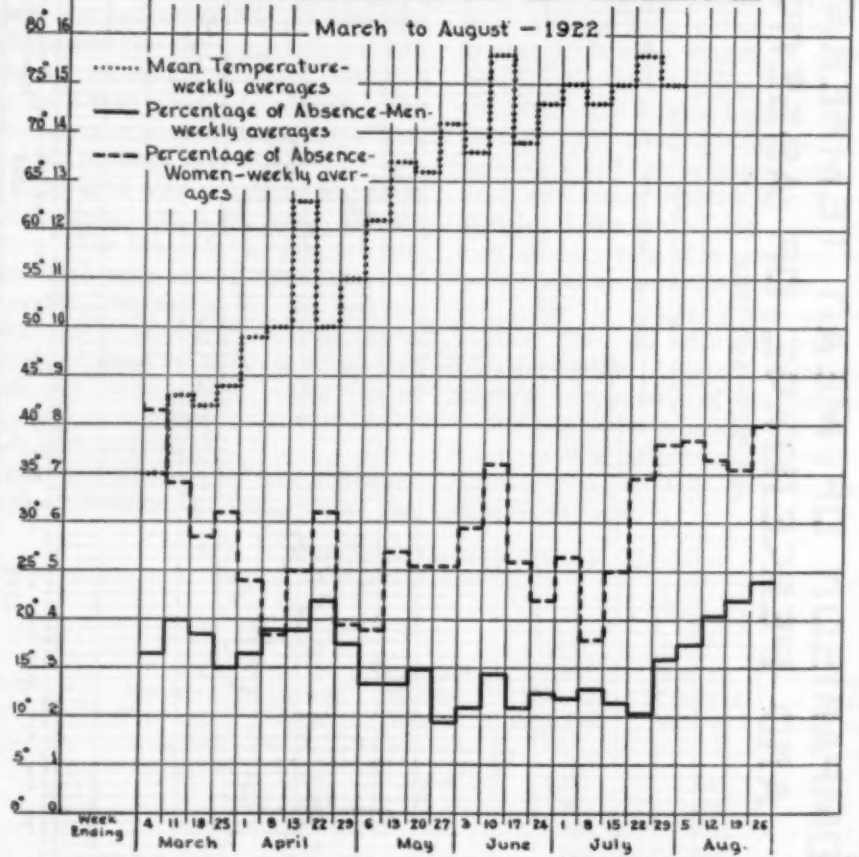


Chart VI

COMPARISON OF MEAN TEMPERATURE AND PERCENTAGE OF ABSENCE



Industrial Research Dept. U. of P

LENGTH OF INDIVIDUAL ABSENCES

The greatest problem of absence in these plants is not due to short absences by a widely distributed group of employees. Even among the one-day absences which account for about one-third of the non-attendance, the same employee is gone at fairly frequent intervals. Mr. Hackett states the problem in this way:

Some workers take an occasional day off at calculated intervals, regarding it as somewhat of a necessity to the maintenance of their health. Others stay on the job till sickness forces them to remain at home, thus losing twice as much time in the aggregate with less benefit to themselves. No employer can feel that the

first course is the unwise one. The fact is that perfect attendance means that a worker has no opportunity for the performance of civic or family obligations and possibly not enough for the maintenance of health.

The greatest difference in the individual absences of men and women is found in the percentage of absences of ten days and over; 26.7 per cent of the total absences of women are for a period of 10 or more working days; only 19 per cent of the men's absences fall in this frequency interval. The frequency table by days of absence shows the loss to the company as well as length of each absence in the six months—ending June, 1922.

IV—CLIMATIC INFLUENCES IN NON-ATTENDANCE

Many factors aside from the weather affect the attendance of workmen. Yet if there is a general conformity between the curves of non-attendance and the fluctuations of the curves of climate, it seems reasonable to ascribe some influence to that factor. Some items in the daily reports are definitely connected with unfavorable weather: storms in winter, excessive heat in summer, and wet weather for which some employees have not adequate protective clothing appear on the records. These items, at most, make a small part of the total. The problem, then, is: does it appear that the climatic factors strengthen other reasons and pile up non-attendance on unpleasant days?

Let us consider average weekly attendance and mean weekly temperature for the six months, March–August, 1922. It should be recalled that this has been a particularly cool summer with only a few weeks of excessively warm weather. The warm days of the second week in June are only

slightly reflected in the men's absence curve, while it is somewhat pronouncedly shown in the rise of the curve for women. A similar week at the beginning of July did not affect the men's absences in any way. On the contrary, the dotted line representing the absences of women rose considerably. Unfortunately, in 1921, the absence curves for men and women must be combined for comparison. In that year a stretch of weeks of warm weather occurred in July. During all this time the absenteeism remained high, returning to normal only after the mean temperature became lower.

In comparing the daily absence of workers in Chart II, p. 202, the maximum daily temperature has been used instead of the mean, since the maximum temperature more nearly reflects the comfort or discomfort of the working hours.⁶ The daily curves for men and women have already been dis-

⁶ The maximum temperature is better to use for summer and the minimum for winter. The maximum has been used throughout the

cussed. These curves tend to follow the temperature curves in the first days of warm weather in March and April; a warm week around the tenth of May is more sensitively reflected in the women's than in the men's curve. The warm days in June and July have little influence upon either curve.

CLIMATOLOGICAL DATA BY DAYS OF WEEK

Since Monday absences run higher at all mills than absences of other days, there is no reason to think that climatological factors play any part in the Monday absences above the average of other days. For this reason the absence percentages for Wednesday as well as those for Monday were compared with the rainfall and temperature. On these charts the dotted line represents maximum temperature in degrees, the open circled line represents rainfall in inches and the solid black line represents the total combined percentage of absence of men and women at firm A.

On Mondays there are few days of heavy rainfall and little correspond-

ence of this curve and absenteeism. In 1922, February 27 and March 20 were Mondays with storms continued over from a previous day. In each case the absence was excessive. On the wet Monday, May 23, which shows so markedly on the chart, the rain did not begin until late afternoon and in no way could affect absence. The peak of April 17 has already been mentioned as due to Easter Monday. This accounts for every high peak in the curve except that of January 30, 1922, which may be due to cold. On the Wednesday curve, note the generally lower average of the curve except on particularly unfavorable days.

Summarizing, it may be said that cold weather effects the curve for absence of women more than warm; that the men's curve, except when transportation is disturbed, is on the whole little influenced by winter weather. Both curves are markedly increased by the first excessive days of heat. Rainfall in the summer months has rather little influence upon attendance, whereas in spring and late autumn months its influence is unmistakable.

V—CONCLUSIONS

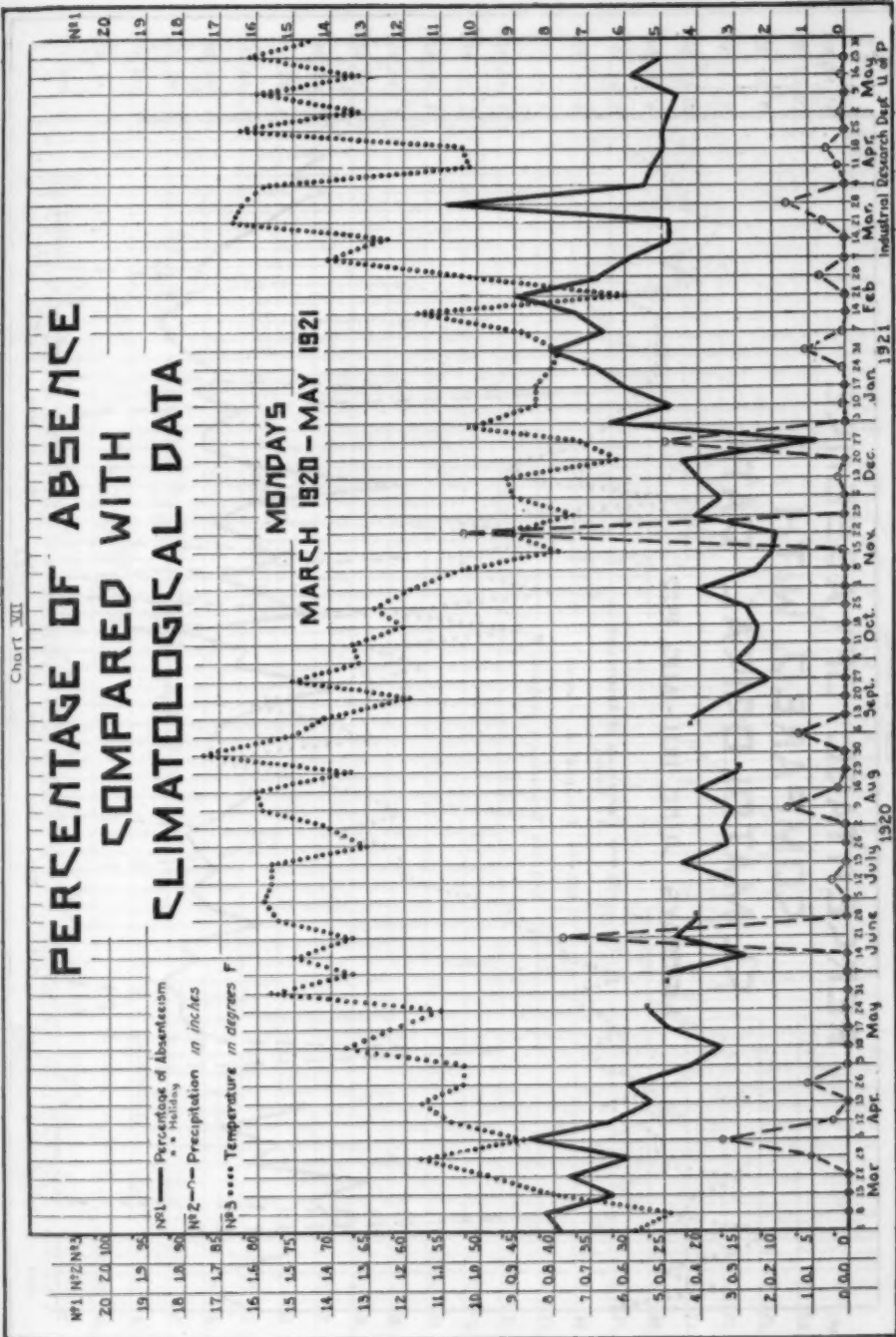
The Director of the Bureau of Commercial and Industrial Relations of the University of Wisconsin writes in Circular No. 5 A:

There is a danger that the advantages of absentee records may be overrated. After all, the prime purpose of underemployment records should be to reduce unproductive hours within the schedule production time. The time lost by the employee

after he has rung his clock card, whether it is lost on the way to his department or after he is in the department, is of much more concern to the employer than the time lost by the worker outside of the plant by absence or tardiness. To protect against such losses the employer needs to refine records considerably beyond the accuracy most absentee reports achieve.

The writers of this study would, however, prefer to stress the necessity of correlating records of absence as well as those of "no work" with production. A study of attendance records in terms of the effect upon production and

study because of the difficulty of determining, for this climate, the time when the change should be made. In reading the graphs, the high points are of significance in the summer and the low in the winter.



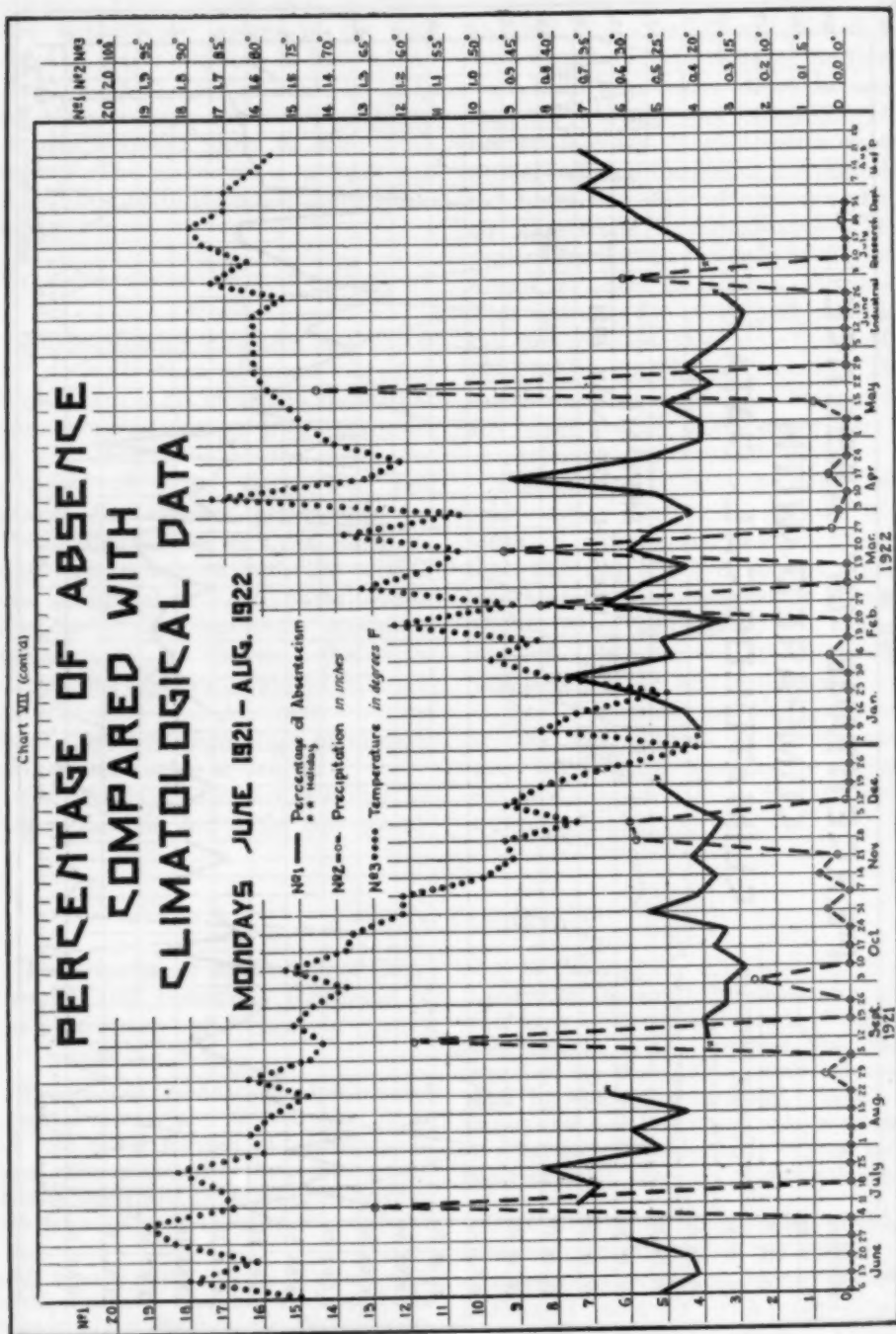


Chart VIII

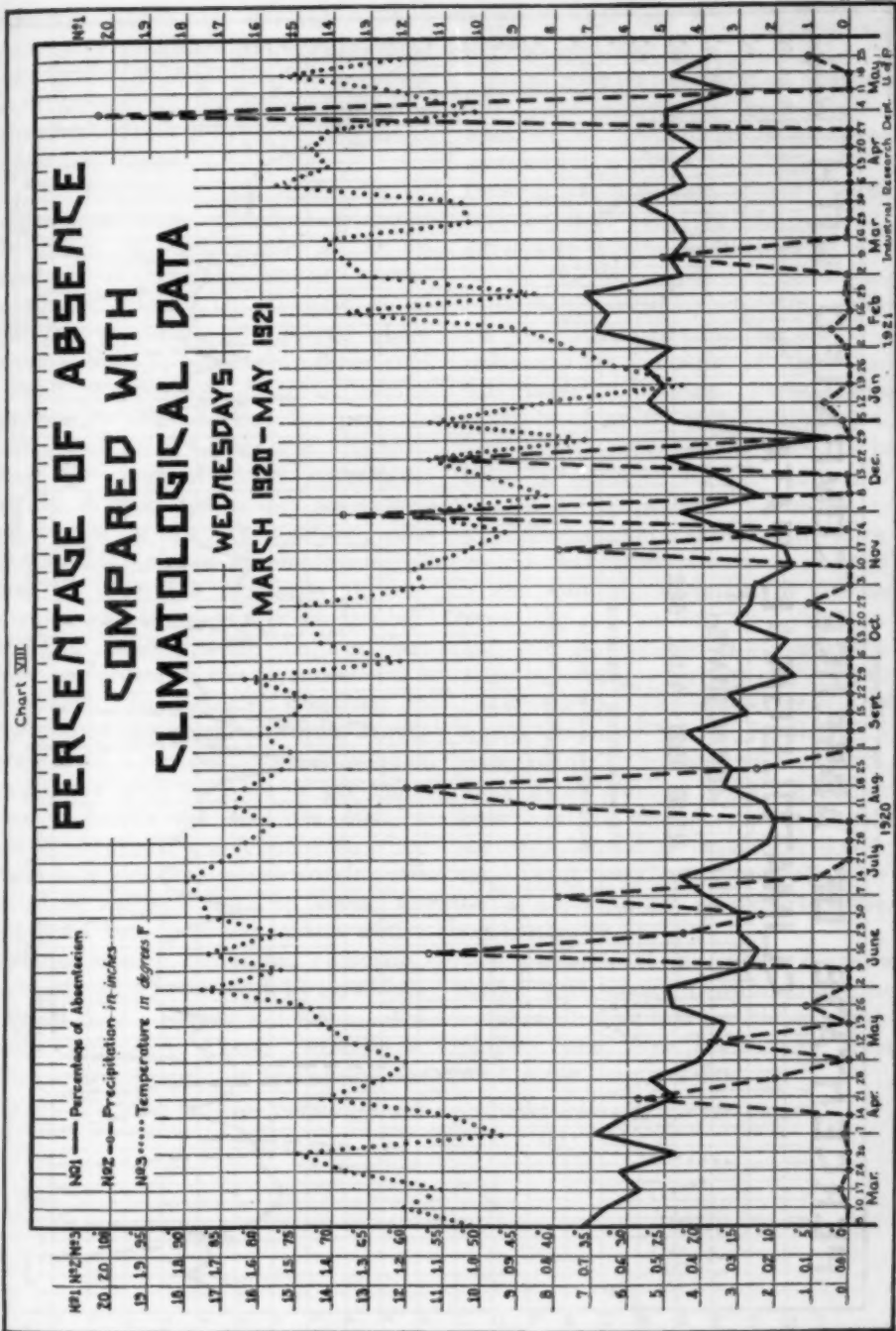


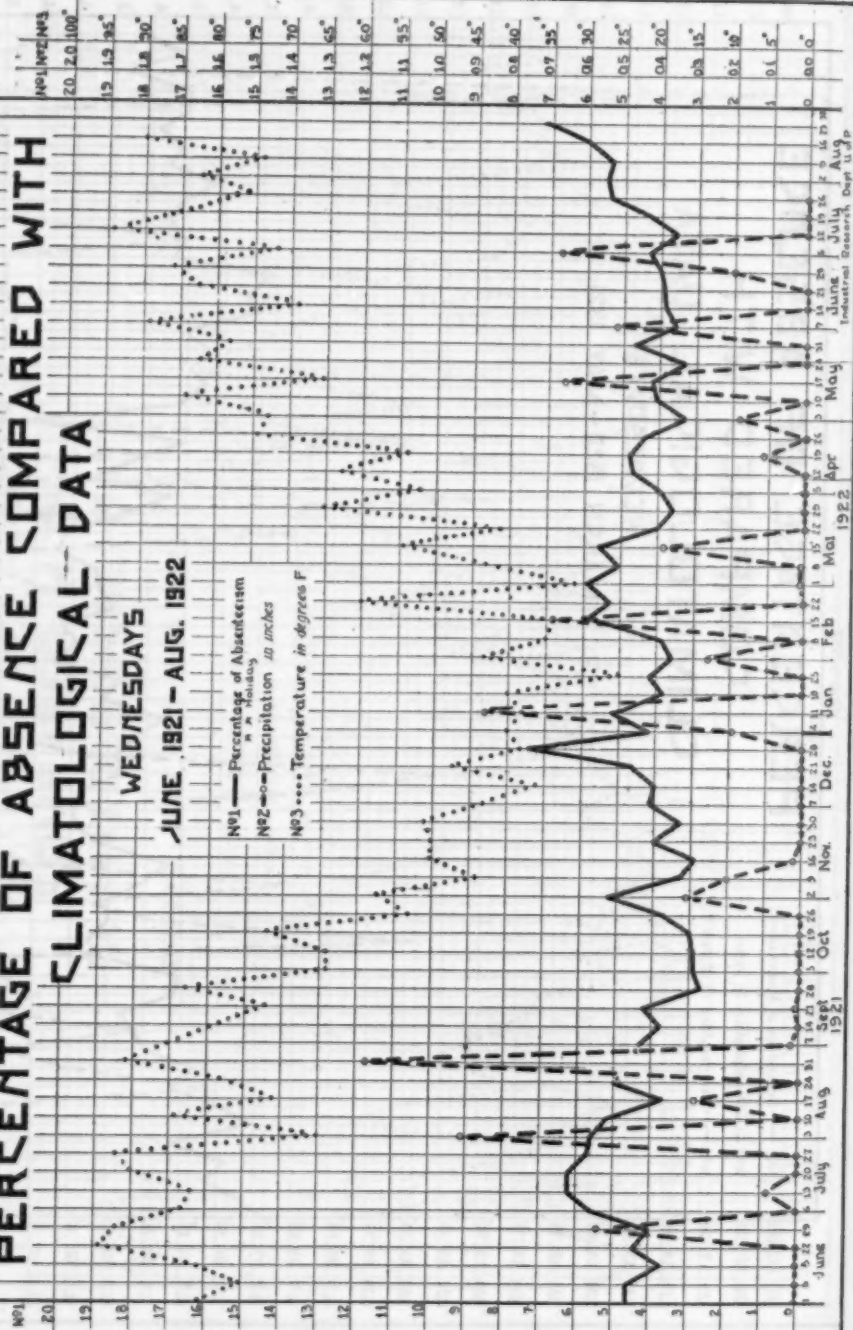
Chart VIII (cont d)

PERCENTAGE OF ABSENCE COMPARED WITH CLIMATOLOGICAL DATA

WEDNESDAYS

JUNE, 1921 - AUG. 1922

N01 — Percentage of Absenteeism
N02 — Precipitation in inches
N03 — Temperature in degrees F



Industrial Research Dept U.S.P.

earnings would be valuable. Fluctuation in the size of the working force due to irregular reporting of employees is important in maintaining production schedules and in preventing intermittent overtime.

The findings of this study do not differ from those already established by other industrial students. In an analysis of absenteeism in several prominent plants, Dr. Florence found the rate of absence in factories where work is light to be between 3 per cent and 8 per cent; in factories having preventive organizations the percentage was as low as 1.8 per cent. Doubtless the range of these percentages would depend upon the proportion of women in the organizations, and the marital status of employees, as well as upon the regularity of production and the flow of work through the shop. None of the plants studied here had attained the low rate of 1.8 per cent. In factories discussed in this study the absence of men varied from 3 to 5 per cent; that of women ranges as high as 5 to 8 per cent, nearly double the rate for men, a difference which was found even when men and women were working on identical operations. The lowest attendance rate is found in the winter months, women employees, especially, being detained from work by excessively cold days. Spring and fall months show uniformly higher attendance. This seasonal variation in the regularity of the size of the working force

is predictable and can be considered in planning work.

At all the plants Monday absences have been higher than those of other work days. The difference in attendance on days of the week shows that there is yet a margin of preventable absence that could be reduced with advantage to the employees as well as to the management. Something could be achieved by educating workers to appreciate the necessity of reducing the amount of time lost for avoidable reasons. Perhaps this could be done by more attention to interviewing returned absentees. The foreman could be further enlisted in the cases of "permission" by furnishing a specific cause in addition to the information that the employee was excused.

The monthly variation in absence according to seasons is important and can be considered in planning. Low percentages in the spring and fall with higher percentages during the winter months occur regularly in many plants.⁷ In these winter months more extra workers must be carried on the roll to compensate for the absentees. The daily variation due to unpleasant weather is unpredictable, but is none the less an important factor in planning.

The length of individual absences shows that about two-thirds of the number of days lost are those of employees who have been away from work more than one day.

⁷ Note the conclusion of Mr. Hackett.

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